

Commonwealth of Massachusetts

COMPREHENSIVE ANNUAL FINANCIAL REPORT

FISCAL YEAR ENDED JUNE 30, 2016



THOMAS G. SHACK III, ESQ.
COMPTROLLER

Palmers Island Lighthouse - New Bedford - Bristol County

Commonwealth of Massachusetts



Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 2016

Thomas G. Shack III, Esq.
Comptroller of the Commonwealth

Prepared by
Financial Reporting and Analysis Team
Office of the Comptroller

This document is available at the Comptroller's website: www.mass.gov/comptroller/



Palmers Island Lighthouse - New Bedford - Bristol County

Photo courtesy of the Massachusetts Office of Travel and Tourism

Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 2016

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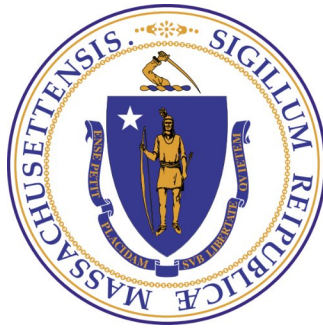
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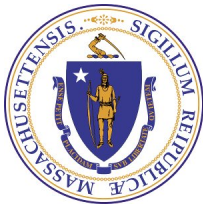
Introductory Section

(Unaudited)

Letter of Transmittal
Constitutional Officers
Commonwealth Organizational Structure
Advisory Board to the Comptroller
Acknowledgements
Certificate of Achievement



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*Thomas G. Shack III, Comptroller
One Ashburton Place
Boston, MA 02108*

January 6, 2017

***To the Citizens of the Commonwealth of Massachusetts,
Governor Charles D. Baker and Honorable Members of the General Court***

I am pleased to provide this Letter of Transmittal for the Commonwealth's fiscal year 2016 (FY16) Comprehensive Annual Financial Report (CAFR) prepared in accordance with Generally Accepted Accounting Principles (GAAP) in the United States of America. The objective of this report is to provide a clear financial picture of our government as a single, unified entity.

This document presents the Commonwealth's financial information on three bases of accounting, each serving a different purpose. The end portion of the report includes "required supplementary information" in the form of budgetary basis statements, which are prepared in accordance with the Commonwealth's budgetary basis of accounting or statutory basis. More detailed information on the statutory basis of accounting and the results of operating on that basis from FY16 are found in the Statutory Basis Financial Report (SBFR) issued separately this past October. The SBFR documents compliance with the legislatively adopted budget at a fund level. Further documentation is found within the Commonwealth's accounting system, the Massachusetts Management Accounting and Reporting System (MMARS). Each state maintains different rules for budgetary reporting and therefore the SBFR should not be used for comparisons across states.

The CAFR's "fund perspective" statements present the governmental operations on a modified accrual basis of accounting. The fund perspective is designed to measure inter-period equity, the extent to which current resources (available within one year) fully fund all current services provided by the government. Long-term liabilities are excluded with the implicit assumption that future tax revenues will fund these liabilities as they come due. This fund perspective provides results similar to the SBFR.

In addition to the fund perspective, this CAFR presents a "government-wide" perspective. This perspective combines all governmental and business-type activities in a statement of net position and a statement of activities, presenting all functions on a full accrual basis of accounting. All capital assets are added to the government-wide statements, as are most long-term liabilities. Funds that are shown as fiduciary under the fund perspective are not portrayed in the government-wide statements, as the assets do not belong to the Commonwealth.

In the government-wide statements, the balance sheet has been organized into a "net position format." This format classifies all assets and liabilities as short and long-term and then subtracts liabilities from assets to arrive at net position.

The Commonwealth's government-wide revenues, expenses and activities are included in the statement of activities. The expenses of the Commonwealth, organized by function, are netted against fees, fines, grant revenues, and assessments generated to fund each function in an attempt to derive the net cost to the taxpayer of each function. This format allows the reader of the financial statements to discern the net cost of a particular function of government funded by taxation and other general revenues.

This CAFR is presented in three sections: **Introductory**, **Financial**, and **Statistical**. The **Introductory Section** contains an overview of current initiatives and summary financial data. The **Financial Section** contains the Management's Discussion and Analysis (MD&A) and the Commonwealth's Basic Financial Statements. GAAP requires that

management provide a narrative overview and analysis in the form of an MD&A to accompany the basic financial statements.

This letter of transmittal is designed to complement the MD&A, where the financial analysis is presented. The Commonwealth's MD&A can be found immediately following the independent auditor's report. The **Statistical Section** contains selected financial and demographic information; it also contains background information on the Commonwealth.

PROFILE OF THE COMMONWEALTH

The Commonwealth of Massachusetts was the sixth of the original 13 colonies to ratify the United States Constitution, joining the United States on February 6, 1788. Boston, the capital of the Commonwealth since its founding, dates from 1630. The Commonwealth has an area of 8,257 square miles. Geographically, the Commonwealth includes 351 cities and towns. The largest city is the capital, Boston. Employment is largely in the education, health services, wholesale and retail trade, financial, and public sectors. Due to the Commonwealth's high levels of basic and advanced education and the presence of world-class educational institutions, the Commonwealth's economy is driven in large part by innovation in high technology, life sciences, health care, and business services.

The Massachusetts Constitution was ratified in 1780 while the Revolutionary War was still in progress, nine years before the United States Constitution was adopted, and is the oldest written Constitution now in use. It specified three branches of Government: Legislative, Executive, and Judicial. "The Great and General Court," elected every two years, is made up of a Senate of forty members and a House of Representatives of one hundred and sixty members. It is the second oldest democratic deliberative body in the world.

The table on page 3 reconciles the fund balances on three bases of accounting: the statutory basis presented in separately issued financial statements this past October; the fund basis; and the entity-wide basis statements, the latter two of which are included in this report.

Governmental Funds - Statutory to GAAP - Fund Perspective and to Governmental Net Position
(Amounts in millions)

Governmental Funds - Statutory Basis, June 30, 2016

Budgeted fund balance.....	\$ 1,482.0
Non-budgeted special revenue fund balance	2,066.9
Capital projects fund balance.....	(334.7)

Governmental Fund Balance - Statutory Basis, June 30, 2016 **\$ 3,214.2**

Plus: Expendable Trust and Similar Fund Statutory balances that are considered Governmental Funds for GAAP reporting purposes	638.3
Less: Massachusetts Department of Transportation Funds.....	(1,275.7)

Adjusted Statutory Governmental fund balance **2,576.8**

Short term accruals, net of allowances and deferrals for increases /(decreases):

Taxes, net of refunds and abatements	1,912.5
Tobacco Settlement Agreement receivable.....	126.0
Medicaid	(601.7)

Other short term accruals:

Assessments and other receivables	273.0
Amounts due to authorities and municipalities, net.....	(580.7)
Claims, judgments and other risks	(11.4)
Amounts due to health care providers and insurers	(60.4)
Workers' compensation and group insurance.....	(147.6)
Compensated absences.....	(11.1)
Other accruals, net	283.6

Net increase to governmental fund balances **1,182.2**

Massachusetts School Building Authority fund balance **1,514.3**

Total changes to governmental funds..... **2,696.5**

Governmental fund balance (fund perspective)..... **5,273.3**

Plus: Capital assets including infrastructure, net of accumulated depreciation.....	4,743.7
Deferred revenue, net of other eliminations	503.4

Long term accruals:

Net pension liability	(32,855.7)
Net deferred (inflows) / outflows of resources related to pension.....	6,025.4
Post employment benefits other than pensions cumulative over / (under) funding.....	(6,466.0)
Environmental remediation liability	(530.8)
Massachusetts School Building Authority debt and school construction payables.....	(7,498.3)
Long term debt, unamortized premiums and net deferrals on debt refundings	(26,445.8)
Compensated absences.....	(592.4)
Capital leases	(41.3)
Accrued interest on bonds.....	(350.7)
Other long term liabilities	(404.7)

Total governmental net position (entity wide perspective)..... **\$ (58,639.9)**

The deficit of \$58.640 billion in governmental activities net position is largely attributable to two factors: first, the Commonwealth's policy decision to finance the construction of assets owned by other government entities, particularly Commonwealth roads and bridges, which as a result of transportation reform completed during FY10 shifted these assets from the books of the Commonwealth to the Massachusetts Department of Transportation (MassDOT), a component unit of the Commonwealth; and second, the Commonwealth's net (or unfunded) pension liability, that

starting in FY15 has been placed on the Commonwealth's books in accordance with [GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*](#). At the end of FY16, MassDOT held \$33.890 billion in road, bridge, and other transportation-related assets (excluding assets of the Massachusetts Bay Transportation Authority) net of related depreciation, the vast majority of which were formerly held by the Commonwealth. The Commonwealth also has financed significant transportation and non-transportation assets currently held by Massachusetts Institutions of Higher Education, Massachusetts' cities and towns, and quasi-public authorities. While the exact amount of Commonwealth-funded assets held by these entities is difficult to determine, between FY06 and FY16 the Commonwealth's capital spending on Higher Education capital projects totaled approximately \$1.6 billion, capital spending for transportation-related financial assistance to local governments totaled approximately \$2.7 billion, and other grants and financial assistance for non-Commonwealth entities such as cities and towns and quasi-public authorities funded through the Commonwealth's capital budget totaled \$4.6 billion, including \$1 billion to fund the Massachusetts School Building Authority (MSBA) in FY05 and FY06. In addition, the Commonwealth has a net liability of \$5.891 billion for debt and grant obligations for the School Building Assistance Program that finances construction of schools for the Commonwealth's cities and towns. As almost all of this capital spending was financed by Commonwealth debt, the liabilities are retained by the Commonwealth while the assets are held by the Institutions of Higher Education, Massachusetts cities and towns, and entities such as local housing and other quasi-governmental authorities.

Since MassDOT's governmental activity ended FY16 with a positive net position of \$25.615 billion, it is more informative to view the Commonwealth's financial statements in combination with MassDOT than to analyze the two separately, while also keeping in mind that significant assets owned by the Institutions of Higher Education and local governments and authorities were financed by liabilities still on the Commonwealth's books.

As mentioned above, GASB 68 required that the Commonwealth's net pension liability, or NPL, be recorded on the Commonwealth's books for the first time in FY15. The FY16 NPL for the Commonwealth totaled \$33.575 billion, offset by GASB 68 related adjustments (in the form of deferred inflows and outflows) of \$6.263 billion; resulting in a reduction of net position of \$27.312 billion.

The net deficit in governmental activities (which excludes "business-type activities" of Unemployment Insurance and Higher Education) increased by \$3.787 billion between June 30, 2015 and June 30, 2016. Virtually all growth in the net deficit was due to the following two factors:

- The Commonwealth had until recently funded its other post-employment benefits (OPEB) liability purely on a pay-as-you-go basis. GAAP reporting requires the accrual of a liability for the difference between this amount and the actuarially required contribution. The change in the accrual was \$861 million in FY16, reducing net position; cumulative OPEB underfunding is \$6.466 billion. However, the Commonwealth has dedicated payments from the Master Settlement Agreement with tobacco companies to fund its OPEB liability. These payments are being phased in over ten years, and statute requires that these payments increase from \$77 million in FY16 to approximately \$250 million annually by FY23, although the statutorily-required payments were frozen at the FY15 level in FY16 and FY17.
- As explained on page 3, the Commonwealth continues to fund, through its own debt, transportation-related assets owned by the Massachusetts Department of Transportation (MassDOT), Institutions of Higher Education, cities and towns and quasi-public authorities. In FY16, approximately \$2.205 billion of the more than \$2.843 billion in state-funded capital spending generated assets not owned by the Commonwealth, including \$1.490 billion in transportation spending (more than \$293 million of which were grants and other financial assistance to cities and towns), \$227 million for Institutions of Higher Education (which are attributed to the Commonwealth's business-type activities), and approximately \$473 million in other capital grants and financial assistance to local governments and quasi-public entities.

The net deficit in government-wide activities, which includes the Commonwealth's business-type as well as governmental activities, increased by \$3.343 billion from FY15, with the deficit in governmental activities partially offset by surpluses in Unemployment Insurance and Higher Education.

REPORTING ENTITY

The financial statements incorporate activity from over 150 departments. These departments include the various agencies, boards, and commissions, the 25 Institutions of Higher Education, the judicial and legislative branches of government, and constitutional offices. The departments record their daily financial operations in the state accounting system, MMARS, operated by the Office of the Comptroller.

In addition, the financial statements include 40 independent public authorities. These entities are defined as component units and meet the criteria for inclusion in the Commonwealth's reporting entity in accordance with GAAP. They are further described in [Note 13](#) to the basic financial statements. The Massachusetts School Building Authority (MSBA) is blended into the Commonwealth's operations.

INDEPENDENT AUDIT

The Commonwealth's independent auditors, KPMG LLP, have performed an independent audit of the Commonwealth for the fiscal year ended June 30, 2016. The [independent auditors' report](#) is presented in the Financial Section.

The Office of the Comptroller prepares these financial statements and is responsible for the completeness and reliability of the information presented in this report. To provide a reasonable basis for making these representations, the Office of the Comptroller, working in conjunction with the State Auditor, has established a comprehensive internal control framework that is designed to protect the Commonwealth's assets from loss, theft, or misuse and to compile sufficient reliable information for the preparation of the Commonwealth's financial statements in conformity with GAAP. Because of the cost, internal controls should not outweigh their benefits. The Commonwealth's comprehensive framework of internal controls has been designed to provide reasonable, rather than absolute assurance that the financial statements will be free from material misstatement.

I would like to express my sincere thanks to the dedicated employees of the Office of the Comptroller, and in particular Deputy Comptrollers Chris Guido, Jenny Hedderman, Howard Merkowitz, Jeff Shapiro, and Kathy Sheppard, whose tireless efforts serve the people of the Commonwealth well on a daily basis. I am proud to have them all on my team as we embark on another year of innovation within the Comptroller's Office and establish a model for good governance nationwide.

Respectfully submitted,

Thomas G. Shack III
Comptroller of the Commonwealth

CONSTITUTIONAL OFFICERS

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

William F. Galvin
Secretary of State

Maura Healey
Attorney General

Deborah B. Goldberg
Treasurer and Receiver-General

Suzanne Bump
Auditor

LEGISLATIVE OFFICERS

Stanley C. Rosenberg
President of the Senate

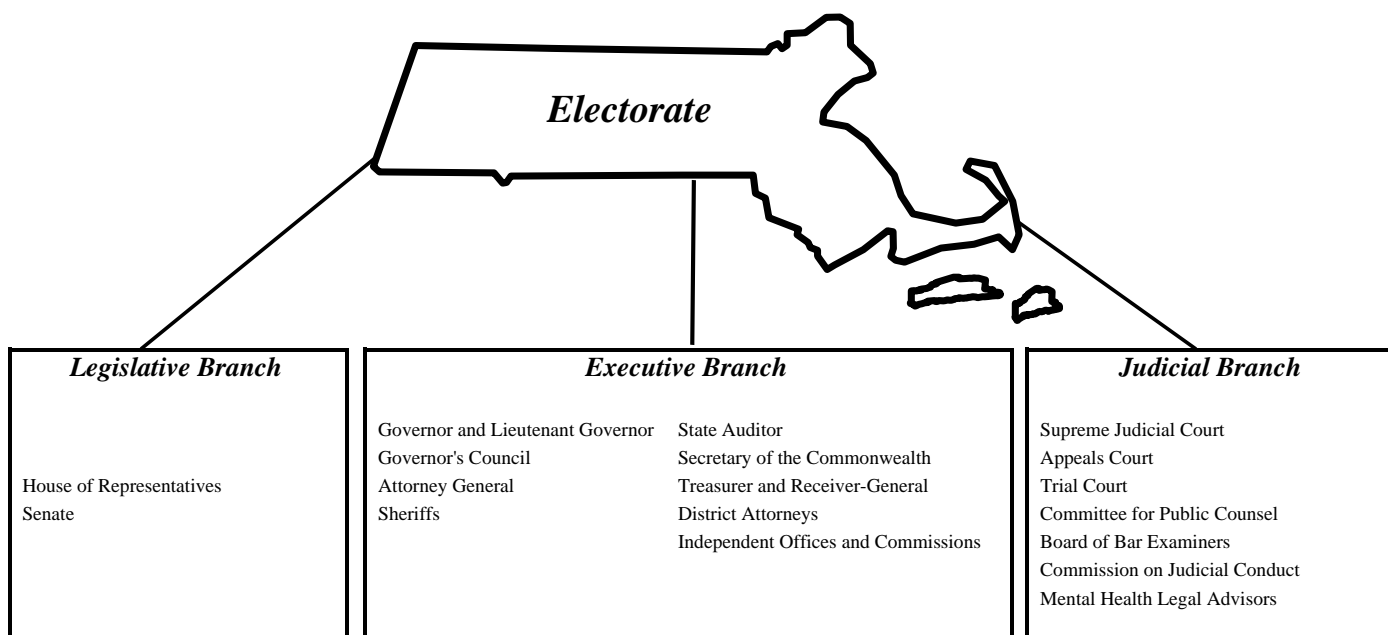
Robert A. DeLeo
Speaker of the House

JUDICIAL OFFICERS

Ralph D. Gants
Chief Justice, Supreme Judicial Court

Scott L. Kafker
Chief Justice, Appeals Court

Lewis H. Spence
Court Administrator, Trial Court



State Agencies		
<p><u>Administration and Finance</u></p> <p>Executive Office for Administration and Finance Appellate Tax Board Bureau of the State House Civil Service Commission Department of Revenue Developmental Disabilities Council Division of Administrative Law Appeals Division of Capital Asset Management and Maintenance George Fingold Library Group Insurance Commission Health Policy Commission Human Resource Division Information Technology Division Massachusetts Office on Disability Massachusetts Teachers' Retirement System Operational Services Division Public Employee Retirement Administration Commission</p> <p><u>Education</u></p> <p>Executive Office of Education Department of Early Education and Care Department of Elementary and Secondary Education Department of Higher Education Community Colleges State Universities University of Massachusetts System</p>	<p><u>Housing and Economic Development</u></p> <p>Executive Office of Housing and Economic Development Department of Business Development Office of Consumer Affairs & Business Regulations Massachusetts Marketing Partnership Department of Housing & Community Development Department of Telecommunications and Cable Division of Banks Division of Insurance Division of Professional Licensure Division of Standards</p> <p><u>Energy and Environmental Affairs</u></p> <p>Executive Office of Energy and Environmental Affairs Department of Agricultural Resources Department of Conservation and Recreation Department of Energy Resources Department of Environmental Protection Department of Fish and Game Department of Public Utilities State Reclamation Board</p> <p><u>Executive Office of Transportation and Public Works</u></p> <p><u>Executive Office of Labor and Workforce Development</u></p>	<p><u>Health and Human Services</u></p> <p>Executive Office of Health and Human Services Executive Office of Elder Affairs Department of Children and Families Department of Developmental Services Department of Mental Health Department of Public Health Department of Transitional Assistance Department of Veterans' Services Department of Youth Services Massachusetts Commission for the Blind Massachusetts Commission for the Deaf and Hard of Hearing Massachusetts Rehabilitation Commission Office for Refugees and Immigrants Soldiers' Home, Holyoke Soldiers' Home, Massachusetts</p> <p><u>Public Safety</u></p> <p>Executive Office of Public Safety and Security Chief Medical Examiner Department of Criminal Justice Information Services Department of Correction Department of Fire Services Department of Public Safety Department of State Police Massachusetts Emergency Management Agency Military Division/ Massachusetts National Guard Municipal Police Training Committee Parole Board Sex Offender Registry</p>

ADVISORY BOARD TO THE COMPTROLLER

Kristen Lepore (Chair)
Secretary of Administration and Finance

Suzanne Bump
Auditor

Deborah B. Goldberg
Treasurer and Receiver-General

Lewis H. Spence
Chief Administrator, Trial Court

Maura Healey
Attorney General

Michael Esmond
Gubernatorial Appointee

Timothy C. Sullivan
Gubernatorial Appointee

REPORT PREPARED BY:

Howard Merkowitz
Deputy Comptroller

Statewide Financial Reporting and Analysis

Michael Rodino, CPA
Director

Bhavdeep J. Trivedi
Director Emeritus of the Financial Reporting Group

Pauline Lieu, CPA, CFE, CGFM
Accountant

Mayowa Taiwo, CPA
Accountant

Christine Bender
Accountant

Paul O'Leary
Accountant

Craig Delmonte
Accountant

Cathy Hunter
Program Coordinator

Statewide General Accounting

Julia P. Burns, CGFM
Director, General Accounting
(In Memoriam)

Statewide Department Assistance

Scott Olsen
Director, Department Assistance



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Government Finance Officers Association

**Certificate of
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Commonwealth of Massachusetts

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2015

Executive Director/CEO



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Financial Section

Independent Auditors' Report

Management's Discussion and Analysis

Basic Financial Statements

Notes to the Basic Financial Statements

Required Supplementary Information Other Than Management's Discussion and Analysis

Other Supplementary Information



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KPMG LLP
Two Financial Center
60 South Street
Boston, MA 02111

Independent Auditors' Report

Mr. Thomas G. Shack III, Comptroller
The Commonwealth of Massachusetts
Boston, Massachusetts

Report on the Financial Statements

We have audited the accompanying financial statements of the governmental activities, the business-type activities, the aggregate discretely presented component units, each major fund, and the aggregate remaining fund information of the Commonwealth of Massachusetts (the Commonwealth), as of and for the year ended June 30, 2016, and the related notes to the financial statements, which collectively comprise the Commonwealth's basic financial statements as listed in the accompanying table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We did not audit the financial statements of the University of Massachusetts, the State Universities and the Community Colleges all of which are major enterprise funds and represent 87% of the total assets and deferred outflows of the business-type activities. Additionally, we did not audit the financial statements of the nonmajor component units, which represent 7% of the total assets and deferred outflows of the aggregate discretely presented component units. Those financial statements were audited by other auditors, whose reports thereon have been furnished to us, and our opinions, insofar as they relate to the amounts included for those entities, is based solely on the reports of the other auditors. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement. The financial statements of certain entities identified in Note 13 of the basic financial statements were not audited in accordance with *Government Auditing Standards*.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.



We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, based on our audit and the reports of other auditors, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities, the business-type activities, the aggregate discretely presented component units, each major fund, and the aggregate remaining fund information of the Commonwealth of Massachusetts as of June 30, 2016, and the respective changes in financial position, and where applicable, cash flows thereof for the year then ended in accordance with U.S. generally accepted accounting principles.

Emphasis of Matter

As discussed in Note 1 to the basic financial statements, in fiscal year 2016, the Commonwealth adopted the provisions of Governmental Accounting Standard Board (GASB) Statement No. 72, *Fair Value Measurement and Application*. Our opinions are not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and required supplementary information, as listed in the accompanying table of contents (collectively referred to as RSI) be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the RSI in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary and Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Commonwealth's basic financial statements. The introductory section, other supplementary information and statistical section as listed in the accompanying table of contents are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The other supplementary information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplementary information is fairly stated in all material respects in relation to the basic financial statements as a whole.

The introductory and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

**Other Reporting Required by *Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated January 6, 2017 on our consideration of the Commonwealth's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Commonwealth's internal control over financial reporting and compliance.

KPMG LLP

January 6, 2017



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Management's Discussion and Analysis

(Unaudited)

Financial Highlights – Primary Commonwealth Government

Government-Wide Highlights

This analysis, prepared by the Office of the Comptroller, offers readers of the Commonwealth's financial statements a narrative overview of the activities of the Commonwealth for the fiscal year ended June 30, 2016 (FY16). We encourage readers to consider this information in conjunction with the additional information that is furnished in the letter of transmittal and with the Commonwealth's financial statements, which follow. This analysis is required by the Governmental Accounting Standards Board (GASB), which provides preparers with guidelines on what must be included in and excluded from this analysis.

Net Position – The liabilities of the primary government exceeded its assets at the end of FY16 by almost \$52.904 billion, an increase in the net deficit of \$3.343 billion from FY15.

Of the \$52.904 billion deficit, “unrestricted net position” has a deficit of \$58.433 billion and there is a \$2.245 billion positive balance attributable to net investment in capital assets. There are five primary reasons for the negative unrestricted net position:

1. With the implementation of Governmental Accounting Standards Board (GASB) Statement No. 68, *Accounting and Financial Reporting for Pensions—an amendment of GASB Statement No. 27*, which was effective starting in FY15, the Commonwealth was required to place on its books the full amount of its unfunded pension liability (known as the “net pension liability”), which totaled \$33.575 billion as of June 30, 2016.
2. The Commonwealth has a net liability of \$5.891 billion for its share of the construction costs of schools owned and operated by municipalities through the Massachusetts School Building Authority (MSBA);
3. In FY10, the Commonwealth implemented transportation reform, which created the Massachusetts Department of Transportation (MassDOT) and transferred to that entity virtually all highway and bridge assets of the Commonwealth totaling approximately \$15.521 billion, as of the date of the transfer, net of depreciation. These and subsequently constructed road and bridge assets were valued at \$33.890 billion as of June 30, 2016. However, the Commonwealth originally paid and continues to pay for the construction of these assets and retains more than \$12 billion in transportation-related debt, which is now unrelated to any capital asset owned by the Commonwealth.
4. The Commonwealth, through debt issuances, also pays for non-transportation capital assets held by quasi-public entities and local governments and housing authorities.
5. The Commonwealth had, until recently, funded its retiree health insurance benefits (Other Post-Employment Benefits, or OPEB) on a pay-as-you-go basis. As a result, as of June 30, 2016, it had accumulated a \$6.466 billion liability for OPEB. However, the Commonwealth has dedicated payments from the Master Settlement Agreement with tobacco companies to fund its OPEB liability. These payments are being phased in over ten years, and are projected to increase from \$77 million in FY16 to approximately \$250 million annually by FY24.

At the end of FY16, the Commonwealth also held \$3.285 billion in “restricted net position”, which are assets restricted primarily for payment of debt service, unemployment insurance benefits, and the Institutions of Higher Education. Approximately \$1.478 billion in restricted net position balances were set aside for unemployment benefits, an additional \$1.217 billion was restricted for debt retirement (of which \$1.093 billion was restricted for MSBA debt retirement), \$268 million was restricted for Higher Education, and \$211 million was restricted for other governmental purposes.

The Commonwealth's governmental activity (which excludes the “business-type activities” of the Institutions of Higher Education and Unemployment Insurance) net deficit increased by \$3.787 billion, to \$58.640 billion, and its governmental

activities unrestricted net deficit increased by approximately \$4.040 billion in FY16.

Total revenues of the primary government increased by \$2.999 billion, or 5.4% in FY16, to \$58.169 billion. Total expenses of the primary government increased by \$4.171 billion, or approximately 7.3%, to \$61.511 billion. Detail on revenue and expenses can be found on pages 24-27.

The net position of business-type activities increased by \$444 million, due to a surplus of approximately \$286 million in Higher Education activity and \$158 million in the Unemployment Insurance program.

On a "funds perspective" basis, at June 30, 2016, the Commonwealth's governmental funds reported a combined ending fund balance of \$5.273 billion, an increase of \$32 million from June 30, 2015. Of the ending balances:

- \$8 million is nonspendable, \$1.370 billion is restricted, \$2.422 billion is committed, \$846 million is assigned and \$628 million is unassigned fund balance (a full discussion of these classifications is included in [Note 1](#) to the basic financial statements, on pages 69-71).
- The MSBA's fund balance of \$1.514 billion is blended with the Commonwealth. Within this fund balance is \$1.208 billion in cash and restricted investments, which resulted primarily from the issuance of debt in FY16 and previous fiscal years, less approximately \$33 million in liabilities. In FY16, \$799 million was dedicated to the MSBA from Commonwealth sales taxes, and the MSBA issued \$1.179 billion in long-term dedicated sales tax bonds, of which \$1 billion refunded already outstanding debt and \$150 million was new money bonds.

Other highlights of FY16 financial operations include:

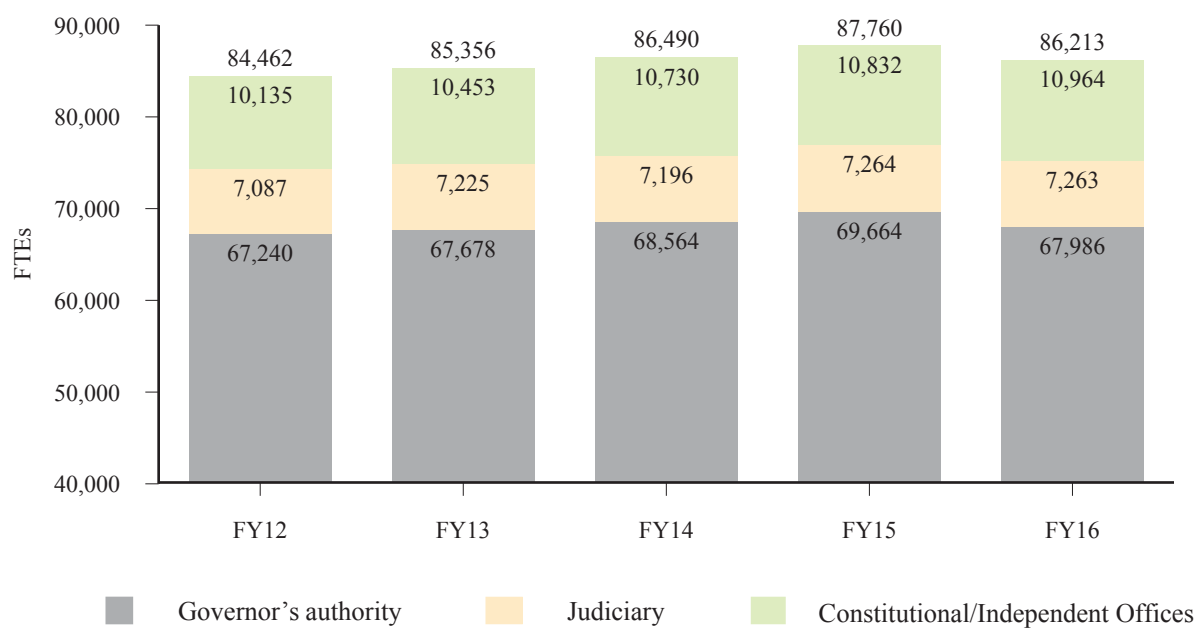
- Tobacco settlement proceeds for the year were approximately \$262 million on a GAAP basis, an increase of approximately \$21 million from FY15. Approximately \$126 million has been reported as a receivable in the governmental funds, equal to half of the anticipated tobacco settlement proceeds to be received in FY16. In FY16 approximately \$77 million, or the equivalent of 30% of tobacco settlement proceeds, was transferred to the State Retiree Benefits Trust Fund (SRBTF) to fund the Commonwealth's liability for retiree health care. The FY16 budget funds a transfer to the SRBTF equal to 30% of tobacco settlement proceeds. Per statute, the proportion of tobacco settlement revenues transferred to the SRBTF increases annually until an amount equal to 100% of the tobacco settlement proceeds is to be transferred to the SRBTF in FY23, although the requirement to transfer increasing percentages of tobacco settlement proceeds was suspended in FY16 and FY17 and frozen at 30% (equal to the FY15 required percentage) for both years.
- During the fiscal year, the Commonwealth passed or agreed to terms of approximately \$200 million in bond authorizations. There were no bond de-authorizations of previously approved capital appropriations during the fiscal year. The Commonwealth determines the timing and extent of capital spending and bonding as part of its five-year capital plan.
- Lottery revenues for FY16 were \$5.406 billion, an increase of approximately \$211 million, or 4.1%, from FY15. Prizes were approximately \$4.314 billion. Lottery profits, after deducting administrative expenses and fringe benefit charges to reimburse the Commonwealth's General Fund for pension and employee health insurance benefits, but prior to distributions to reimburse the Massachusetts Cultural Council and compulsive gamblers appropriation as mandated in the FY16 budget, totaled \$989 million, an increase of \$5 million, or 0.5%, from FY15. Mandated transfers to the General Fund to reimburse it for administrative expense appropriations and other spending totaled \$1.092 billion.

Full-Time Equivalent Employment

The following chart shows the Commonwealth's full-time equivalent employment, including the Massachusetts Department of Transportation (MassDOT) for all state funding sources (budgetary, non-budgetary, capital, federal, and trust) over the past five fiscal years. In FY16, the number of Commonwealth FTEs decreased by approximately 1,500, to a total of 86,213, with most of the decreases in health and human services (approximately 502 FTEs), MassDOT (approximately 352 FTEs), administration and finance (approximately 387 FTEs), labor and workforce development (approximately 270 FTEs), public safety (approximately 244 FTEs) and environmental affairs (approximately 150

FTEs) due primarily to the early retirement incentive program (ERIP) enacted during FY15 and were retired as of July 1, 2015. Employment levels increased by a total of approximately 1,751 FTEs between June 30, 2012 and June 30, 2016 restoring some of the reductions that occurred in FY09 and FY10.

***Full Time Equivalent Workforce
Including Higher Education and the Massachusetts Department of Transportation
June 2012 – June 2016***



OVERVIEW OF THE FINANCIAL STATEMENTS

This MD&A is intended to serve as an introduction to the Commonwealth's basic financial statements. The Commonwealth's basic financial statements comprise the following: 1) government-wide financial statements; 2) fund financial statements; and 3) notes to the financial statements. This report also contains additional required supplementary information in the form of budgetary schedules, which are prepared on the statutory basis of accounting, as well as pension and other post-employment benefits (OPEB) funding schedules. Other supplementary information is also provided to furnish additional detail to support the basic financial statements.

Government–Wide Financial Statements

The government-wide financial statements present the reader with a broad overview of the Commonwealth's finances in a manner similar to a private sector business. The statements include the *Statement of Net Position*, which presents the assets, liabilities and net position for the government as a whole. Also presented is the *Statement of Activities*, which presents the functional expenses, offsetting revenues and changes in net position of the Commonwealth. The statements report the Commonwealth's net position and changes in net position. An increase or decrease in the Commonwealth's net position is one way to measure financial health as well as the trend of increases or decreases over time. Non-financial measures such as the types of capital investments, changes in taxation, population, employment and economic conditions are also indicators of the overall health of any government.

Both the statement of net position and the statement of activities have separate sections for three different categories of the Commonwealth's operations. These activities are Governmental Activities, Business-type Activities, and Discretely Presented Component Units. Governmental activities are where the Commonwealth's basic services are reported. Business-type activities are those for which fees are charged for particular services. For the Commonwealth, business-type activities comprise the unemployment insurance compensation system and the Institutions of Higher Education. The component units are separate legal entities that are included in this report due to the nature of their governance and financial relationship with the Commonwealth.

The government-wide financial statements can be found on [pages 38-41](#) of this report.

Fund Financial Statements and Component Unit Financial Statements

Funds are groups of related accounts that are used to maintain control over resources that have been segregated for specific activities or objectives. The Commonwealth, like other governments, uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements. Within the funds, budgetary compliance is demonstrated at the appropriation level for budgeted expenditures.

Only the major funds are shown separately in the fund financial statements, with the remaining funds aggregated and reported as nonmajor funds.

Fund financial statements focus on individual parts of the Commonwealth, reporting its operations in more detail than the government-wide statements. The Commonwealth's funds can be divided into three categories: [Governmental Funds](#), [Proprietary Funds](#), and [Fiduciary Funds](#). It is important to realize that these fund categories use different bases of accounting and should be interpreted differently. Further discussion of the funds can be found in the section "Financial Analysis of the Commonwealth's Funds" and in [Note 1](#) to the basic financial statements.

Component unit financial statements are presented for entities where the Commonwealth has financial accountability, but the entities are independent of the core Commonwealth operations. Most component units operate similar to private-sector businesses.

Although the Massachusetts School Building Authority (MSBA) is a component unit, the MSBA's operations have been determined by management to operate in a similar fashion to a Commonwealth department due to the MSBA's service to the Commonwealth and because it relies on a pledged portion of the Commonwealth's sales tax revenue to fund its debt service. In FY05, legislation changed the funding of school construction from a direct appropriation of the Commonwealth to a dedicated portion of the sales tax allocated to the MSBA. Because of the nature of transactions between the Commonwealth and this authority, per GASB [Statement No. 39, *Determining Whether Certain Organizations Are Component Units*](#) as amended by [GASB Statement No. 61, *The Financial Reporting Entity: Omnibus*](#), the authority's operations are reported within a governmental fund as a "blended component unit" and on the government-wide financial statements.

Notes to the Financial Statements, Required Supplementary Information and Other Supplementary Information

The notes to the financial statements provide additional information that is essential to a full understanding of the financial statements as of the date provided in the government-wide and the fund financial statements. The notes to the financial statements can be found on [pages 65-130](#).

The required supplementary information section includes a budgetary comparison schedule for the General Fund, along with a reconciliation comparing the original General Appropriation Act and supplemental appropriations to actual budgetary spending. A variance column is also provided. A further reconciliation schedule of the budgeted revenues and expenses to governmental fund perspective revenues and expenditures for the General Fund is also provided. Required pension schedules under [GASB Statement No. 67, *Financial Reporting for Pension Plans*](#), are also presented in this section.

Other supplementary information is not required, but is included to present combining schedules of various nonmajor funds and component units.

GOVERNMENT-WIDE ANALYSIS

The primary government's combined net position (governmental and business-type activities) showed a net deficit of \$52.904 billion at the end of FY16, an increase in the net deficit of \$3.343 billion from the end of FY15. Governmental activities unrestricted net position is negative by \$59.112 billion. As explained previously, in addition to the \$33.575 billion net pension liability recorded on the Commonwealth's books, a substantial portion of this deficit is a result of programs where the Commonwealth decided to fund assets that are owned by political subdivisions of the Commonwealth, and in particular the result of the transfer of assets to MassDOT during FY10, as well as continued

borrowing by the Commonwealth that funds, through its capital budget and debt issuance, construction of new assets owned by MassDOT, local governments, and local authorities. In FY16, MassDOT reports its capital assets on its financial statements, which are incorporated into the Commonwealth's financial statements similarly to other component units.

***Major Long – Term Obligations for
Assets of Political Subdivisions
(amounts in thousands)***

Massachusetts School Building Authority net deficit.....	\$ 5,890,885
Outstanding bonds issued to fund the MBTA.....	207
Debt related to MassDOT assets.....	12,144,486
Effect on unrestricted net position of item unique to the Commonwealth	<u>\$ 18,035,578</u>

Of the Commonwealth's more than \$2.8 billion in FY16 capital spending, approximately \$2.2 billion in state-funded capital spending did not result in capital assets attributed to governmental activities of the Commonwealth, including approximately \$1.5 billion in transportation spending (with \$293 million in grants and other financial assistance to cities and towns), \$227 million for Institutions of Higher Education (which are included in the Commonwealth's business-type activities) and approximately \$473 million in other capital grants and financial assistance to local governments and quasi-public entities. Between FY05 and FY16 the Commonwealth's capital spending on projects owned by non-Commonwealth entities or by the Institutions of Higher Education totaled \$19.1 billion. These include Higher Education capital projects totaling approximately \$1.6 billion, capital spending for transportation projects now owned by the Massachusetts Department of Transportation totaling approximately \$9.8 billion, transportation-related financial assistance to local governments totaling more than \$2.7 billion and other grants and financial assistance for non-Commonwealth entities such as cities and towns and quasi-public authorities funded through the Commonwealth's capital budget of almost \$4.6 billion, including \$1 billion in FY05 and FY06 to capitalize the Massachusetts School Building Authority.

The Commonwealth also funds school construction through debt issued by the MSBA (beyond its initial \$1 billion capitalization), and includes the MSBA's debt on its balance sheet, but the assets paid for with that debt are owned by Massachusetts cities, towns, and school districts.

Current assets and liabilities are amounts that are available in the current period and obligations that will be paid within one year of the financial statement date, respectively. As of June 30, 2016, the Commonwealth's government-wide current cash and cash equivalents totaled \$4.152 billion, an increase of \$65 million from June 30, 2015. Total current assets were \$11.323 billion, an increase of \$474 million from June 30, 2015. As of June 30, 2016, the Commonwealth's current liabilities were \$9.779 billion, an increase of \$5 million from June 30, 2015.

As of June 30, 2016, the primary government's non-current assets totaled \$17.254 billion, an increase of \$117 million from June 30, 2015. This increase was due mainly to a \$645 million increase in capital assets, most of which occurred in business-type of activities, as the result of increases in assets recorded by the Institutions of Higher Education.

The Commonwealth holds \$11.932 billion in traditional capital assets such as land, construction in process, buildings, infrastructure, and equipment, net of accumulated depreciation. GASB requires the reporting of the value of investments in the Commonwealth's infrastructure, including roads, bridges, beaches, dams and other immovable assets on the face of the Commonwealth's financial statements. As these assets provide services to citizens, they are not available to finance future spending unless they are sold. Although the Commonwealth's investment in its capital assets is also reported net of related debt, it should be noted that the resources needed to repay this debt must be provided from other sources, since the capital assets themselves cannot be used to liquidate these liabilities.

The table on page 24 shows the Commonwealth's net position. Restricted net position represents resources that are subject to external constraints.

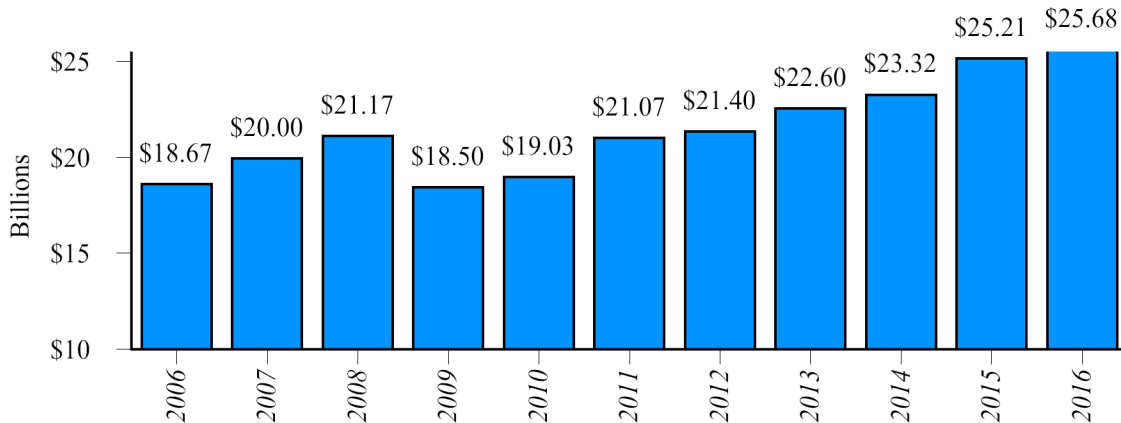
Net Position as of June 30, 2016 and 2015
(in thousands of dollars)

	Governmental Activities		Business-Type Activities		Total Primary Government	
	June 30, 2016	June 30, 2015	June 30, 2016	June 30, 2015	June 30, 2016	June 30, 2015
Current assets	\$ 9,554,420	\$ 9,088,754	\$ 1,768,448	\$ 1,760,469	\$ 11,322,868	\$ 10,849,223
Non-capital non-current assets	2,724,615	3,329,493	2,597,073	2,754,615	5,321,688	6,084,108
Capital assets	4,743,718	4,602,322	7,188,135	6,684,216	11,931,853	11,286,538
Total assets	17,022,753	17,020,569	11,553,656	11,199,300	28,576,409	28,219,869
Deferred outflows of resources	7,257,284	2,300,253	458,721	234,880	7,716,005	2,535,133
Total assets and deferred outflows	24,280,037	19,320,822	12,012,377	11,434,180	36,292,414	30,755,002
Current liabilities	8,625,845	8,727,106	1,153,151	1,047,022	9,778,996	9,774,128
Long term liabilities	73,380,320	62,415,478	5,074,453	4,983,945	78,454,773	67,399,423
Total liabilities	82,006,165	71,142,584	6,227,604	6,030,967	88,233,769	77,173,551
Deferred inflows of resources	913,817	3,031,679	48,608	110,928	962,425	3,142,607
Total liabilities and deferred inflows	82,919,982	74,174,263	6,276,212	6,141,895	89,196,194	80,316,158
Net Position:						
Net investment in capital assets	(1,067,098)	(553,272)	3,311,658	3,055,444	2,244,560	2,502,172
Restricted	1,538,662	1,541,566	1,745,840	1,539,785	3,284,502	3,081,351
Unrestricted	(59,111,509)	(55,841,735)	678,667	697,056	(58,432,842)	(55,144,679)
Total Net Position	\$ (58,639,945)	\$ (54,853,441)	\$ 5,736,165	\$ 5,292,285	\$ (52,903,780)	\$ (49,561,156)

Changes in Net Position

As noted earlier, the Commonwealth's total primary government net deficit increased by approximately \$3.343 billion between FY15 and FY16. The table on page 25 shows the major categories of government-wide revenues and expenses for FY15 and FY16, as well as net position for the two fiscal years. In FY16, approximately 44% of the primary government's total revenue came from taxes, while the remainder resulted from programmatic revenues, including charges for services and grants and contributions, the bulk of which was federal aid. FY16 revenues totaled \$58.169 billion, an increase of \$2.999 billion, or 5.4% from FY15, with tax revenue totaling \$25.676 billion, an increase of \$466 million, or 1.9%, from FY15. The increase in tax revenue was attributable primarily sales tax growth of \$275 million, or 4.7%, and corporate excise tax growth of \$174 million, or 7.7%. Income tax revenue declined by \$202 million, or 1.4%, due to a decline in capital gains tax revenues and reduced GAAP accruals.

**Revenue from Taxation
FY06-FY16**



**Changes in Net Position during the Fiscal Years Ended June 30, 2016 and 2015
(in thousands of dollars except percentages)**

	Governmental Activities		Business - Type Activities		Total Primary Government		Total Primary Government		
	June 30, 2016	June 30, 2015	June 30, 2016	June 30, 2015	June 30, 2016	June 30, 2015	June 30, 2016 Distribution	June 30, 2015 Distribution	'15 to '16 % Change
Revenues									
Program Revenues:									
Charges for services	\$ 10,308,129	\$ 9,582,046	\$ 4,376,517	\$ 3,944,737	\$ 14,684,646	\$ 13,526,783	25.2%	24.5%	2.9 %
Operating grants and contributions	15,158,087	13,950,227	891,823	936,917	16,049,910	14,887,144	27.6%	27.0%	2.2 %
Capital grants and contributions	85,759	81,475	265,714	206,128	351,473	287,603	0.6%	0.5%	20.0 %
General Revenues:									
Taxes	25,676,303	25,209,826	—	—	25,676,303	25,209,826	44.2%	45.7%	(3.3)%
Other	1,160,994	1,251,193	245,441	7,536	1,406,435	1,258,729	2.4%	2.3%	4.3 %
Total Revenues	52,389,272	50,074,767	5,779,495	5,095,318	58,168,767	55,170,085	100.0%	100.0%	26.1 %
Expenses									
Medicaid	16,825,110	15,086,742	—	—	16,825,110	15,086,742	27.3%	26.3%	3.8 %
Direct local aid	5,598,687	5,469,412	—	—	5,598,687	5,469,412	9.1%	9.5%	(4.2)%
Health and human services ..	7,912,817	7,605,180	—	—	7,912,817	7,605,180	12.9%	13.3%	(3.0)%
Lottery	4,299,592	4,109,611	—	—	4,299,592	4,109,611	7.0%	7.2%	(2.8)%
Higher education	—	—	5,081,859	4,695,309	5,081,859	4,695,309	8.3%	8.2%	1.2 %
Early elementary and secondary education	5,420,052	4,654,161	—	—	5,420,052	4,654,161	8.8%	8.1%	8.6 %
Unemployment compensation	—	—	1,499,811	1,598,084	1,499,811	1,598,084	2.4%	2.8%	(14.3)%
Other	14,873,463	14,122,138	—	—	14,873,463	14,122,138	24.2%	24.6%	(1.6)%
Total Expenses	54,929,721	51,047,244	6,581,670	6,293,393	61,511,391	57,340,637	100.0%	100.0%	(12.3)%
Excess/(Deficiency)									
before transfers	(2,540,449)	(972,477)	(802,175)	(1,198,075)	(3,342,624)	(2,170,552)			
Transfers	(1,246,055)	(1,429,174)	1,246,055	1,429,174	—	—			
Change in net position (deficits)	(3,786,504)	(2,401,651)	443,880	231,099	(3,342,624)	(2,170,552)			
Net position/(deficit) - beginning	(54,853,441)	(52,451,790)	5,292,285	5,061,186	(49,561,156)	(47,390,604)			
Net position/(deficit) - ending	(\$58,639,945)	(\$54,853,441)	\$ 5,736,165	\$ 5,292,285	(\$52,903,780)	(\$49,561,156)			

Operating grants and contributions (including federal revenue for Medicaid and Unemployment Insurance) totaled \$16.050 billion, an increase of \$1.163 billion, or 7.8%, in FY16, with Medicaid reimbursements increasing by \$1.073 billion, or 12.3%, as enrollment in the program expanded and some reimbursement rates increased due to implementation of the federal Affordable Care Act. The increase in Medicaid reimbursements was offset by a decline of \$14 million, or 22.6%, in federal reimbursements for the Unemployment Insurance program, as the economic recovery continued in the Commonwealth.

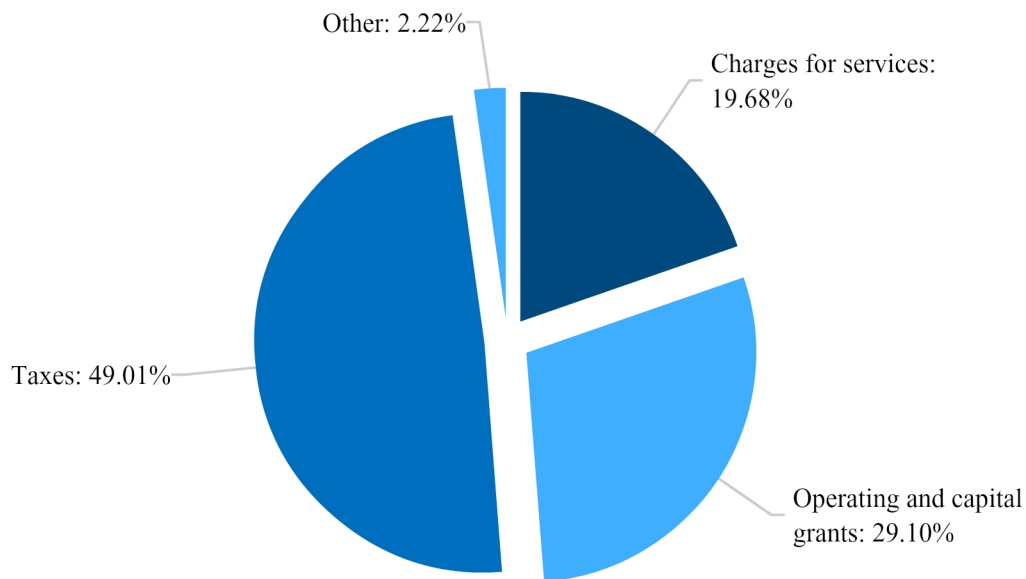
Charges for services totaled \$14.685 billion, an increase of \$1.158 billion, or 8.6%, with increases in charges in Health and Human Services, Lottery, Higher Education, and Unemployment Insurance partially offset by decreases in charges for General Government, Medicaid and Labor and Workforce Development.

As of June 30, 2016, government-wide restricted net position totaled \$3.285 billion, an increase of \$203 million, with increases in assets restricted for Unemployment Insurance benefits offset by decreases in assets restricted for indebtedness and for other purposes.

Primary government spending totaled \$61.511 billion, an increase of \$4.171 billion, or 7.3%, from FY15, with governmental activities spending (i.e., excluding business-type activities such as Higher Education and the Unemployment Insurance program) totaling \$54.930 billion, an increase of \$3.882 billion, or 7.6%, and business-type activities spending totaling \$6.582 billion, an increase of \$288 million, or 4.6%. Medicaid expenses totaled \$16.825 billion, an increase of \$1.738 billion, or 11.5%, from FY15, due to expanded Medicaid eligibility under the Affordable Care Act, increased enrollment growth and higher medical costs. Unemployment insurance compensation expenditures totaled \$1.500 billion, a decrease of \$98 million, or 6.1%, as unemployment declined in the Commonwealth and the extended benefit program expired. Other significant spending changes occurred in Health and Human services, where spending totaled \$7.913 billion, an decline of \$308 million or 4.0%, in transportation and public works, where spending totaled \$2.712 billion, a decline of \$22 million, or 0.8%, in direct local aid, where spending totaled \$5.599 billion, an increase of \$129 million, or 2.4%, and in general government expenses, where spending totaled \$2.616 billion, a decline of \$(87) million, or 3.2%.

Income taxes comprise the bulk of tax revenue. Of the \$25.676 billion in tax revenue within governmental activities, \$14.125 billion, or approximately 55%, of total taxes, was from income taxes, \$6.107 billion, or 24%, was from sales taxes, \$2.439 billion, or 9%, was from corporate taxes, \$768 million, or 3%, was from motor fuels taxes and \$2.236 billion, or 9%, was from other forms of taxation. Lottery revenues of \$5.405 billion made up 52% of the Commonwealth's governmental charges for services. The largest operating grants were federal Medicaid subsidies, which totaled \$9.782 billion, or approximately 65%, of all grants, other health and human services grants of \$2.552 billion, or 17% of all grants, and education grants of \$1.218 billion, or 8% of grants. Most of the state's capital grants are for highway construction, and those federal grants are recorded not in the Commonwealth's financial statements but in the financial statements of the Massachusetts Department of Transportation.

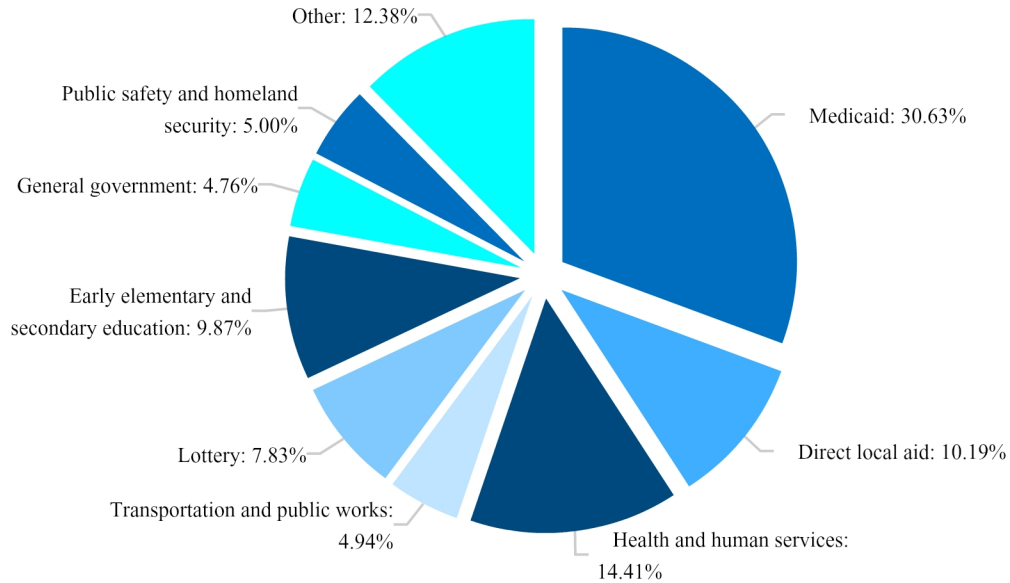
***Revenue—Governmental Activities
Fiscal Year Ending June 30, 2016***



Medicaid expenses of \$16.825 billion accounted for 30.6% of the Commonwealth's governmental activities expenses. Historically, approximately half of Medicaid expenses have been reimbursed by the federal government, although under the Affordable Care Act some Medicaid expenditures are reimbursed at higher rates. The largest expense that is not subsidized by program revenues is direct local aid to the municipalities of the Commonwealth.

Other large expenditures for governmental activities included non-Medicaid health and human services costs of approximately \$7.913 billion, accounting for 14.4% of governmental expenses, pre-kindergarten through secondary education costs of approximately \$5.420 billion, accounting for 9.9% of governmental expenses and public safety and homeland security costs of approximately \$2.747 billion, accounting for 5.0% of governmental expenses. State employees' pensions and other post-employment benefits, which are included in the department spending amounts above, were \$2.450 billion.

Major Expenses—Governmental Activities
Fiscal Year Ending June 30, 2016

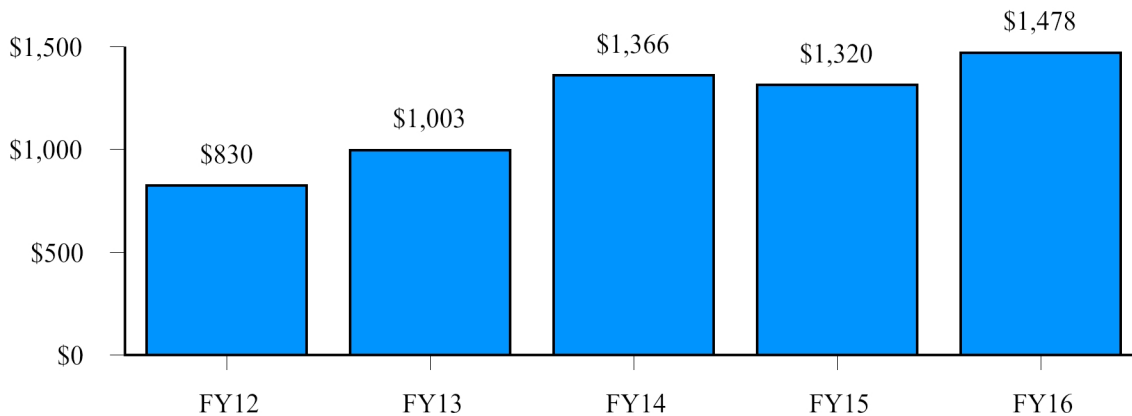


Business—Type Activities

Business—type activities are functions that equate to activities of a private enterprise. In the Commonwealth, the Institutions of Higher Education are deemed to be business-type activities because of their lack of separate taxation. Also, Unemployment Compensation is considered to be a business—type activity.

As of June 30, 2016, business-type activities' net position totaled \$5.736 billion, an increase of \$444 million, or 8.4%, from FY15, with the net position of the Institutions of Higher Education increasing by \$286 million to \$4.258 billion, and the net position of the Unemployment Insurance program increasing by \$158 million, to \$1.478 billion. Revenues of business-type activities totaled \$5.534 billion an increase of \$446 million, or 8.8%, due almost entirely to increases in charges for services, which totaled \$4.377 billion, an increase of \$432 million, or 10.9%, with Unemployment Insurance charges growing by \$119 million, or 8.0%, and Higher Education charges increasing by \$313 million, 12.8%. Operating grants and contributions totaled \$892 million, a decline of \$45 million, or 4.8%, and Capital Grants and Contributions totaled \$266 million, an increase of \$60 million, or 28.9%.

**Unemployment Compensation Fund
Net Position
Fiscal Years 2012 - 2016
(amounts in millions)**



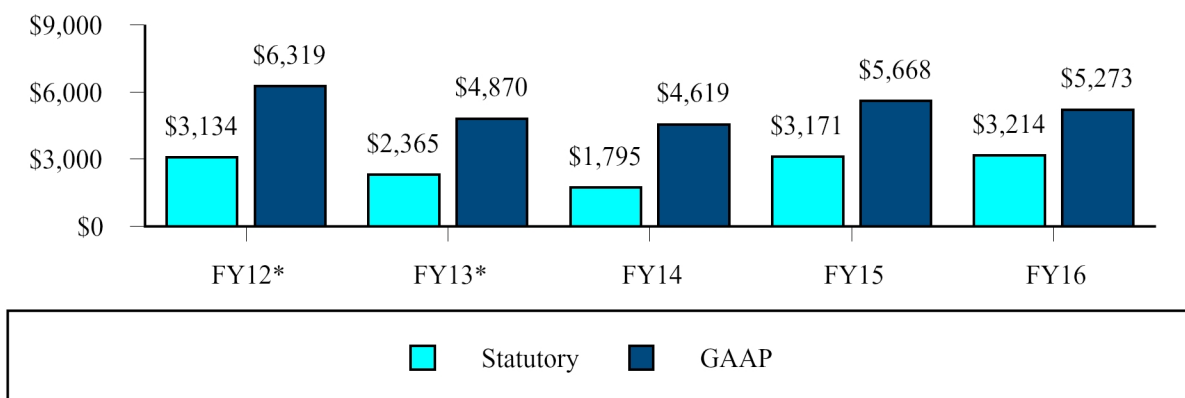
FINANCIAL ANALYSIS OF THE COMMONWEALTH'S FUNDS

The Commonwealth uses fund accounting to demonstrate inter-period equity and the extent to which current resources are financing the full cost of services that citizens are receiving. The basic governmental funds financial statements can be found immediately following the government-wide financial statements.

Governmental Funds

Governmental funds account for the near term inflows, outflows, and balances of expendable resources of the Commonwealth's core functions and services. Each major fund is presented in a separate column in the governmental fund balance sheet and in the governmental fund statement of revenues, expenditures, and changes in fund balances. The General Fund is the primary operating fund of the Commonwealth. At the end of FY16, the fund balance of the General Fund was \$2.574 billion. Of this amount, \$1.292 billion represents the balance in the Commonwealth's Stabilization Fund. \$109 million was classified as assigned for continuing appropriations from FY16 into FY17.

**Governmental Fund Balance
Statutory* vs. GAAP
(amounts in millions)**



*Statutory basis excludes the Massachusetts Department of Transportation (MassDOT)

The Federal Grants Fund is used to manage categorical grants funded in their entirety by the federal government. Also reported in the Federal Grants Fund is \$1.196 billion in food stamp benefit payments, \$73 million of childhood immunization grant and \$24 million from the USDA food program, which do not flow through the Commonwealth but are included in this report under governmental accounting rules.

Governmental Fund Operations - GAAP Basis - Fund Perspective
(amounts in thousands)

	FY16	FY15	FY14	FY13	FY12
Beginning fund balances.....	\$ 5,305,219	\$ 4,619,434	\$ 4,869,951	\$ 6,318,958	\$ 5,267,628
Revenues and other financing sources.....	67,749,586	60,658,637	57,209,970	55,289,871	54,370,101
Expenditures and other financing uses	67,781,500	59,972,852	57,460,487	56,738,878	53,318,771
Excess/(deficiency)	(31,914)	685,785	(250,517)	(1,449,007)	1,051,330
Ending fund balances.....	<u>\$ 5,273,305</u>	<u>\$ 5,305,219</u>	<u>\$ 4,619,434</u>	<u>\$ 4,869,951</u>	<u>\$ 6,318,958</u>

FY16 governmental fund revenues and other financing sources totaled \$67.750 billion, an increase of \$7.091 billion, or 11.7%, from FY15. Tax revenues totaled \$25.746 billion, an increase of \$488 million, or 1.9%, primarily due to growth in income, sales and corporate taxes as the Massachusetts economy continued to recover from recession. Federal grants and reimbursements totaled \$15.233 billion, an increase of \$1.188 billion, or 8.5%, due primarily to growth in reimbursable Medicaid spending. Assessments, fees, and investment earnings totaled \$12.013 billion, an increase of \$707 million, or 6.3%. Revenues from other financing sources totaled \$14.757 billion, an increase of \$4.708 billion, or 46.9%, primarily due to increased bond issuance and transfers to health related funds.

FY16 governmental fund expenditures and other financing uses totaled \$67.782 billion, an increase of \$7.809 billion, or 13.0% from FY15. Medicaid expenditures totaled \$16.825 billion, an increase of \$1.738 billion or 11.5%, with the increase due primarily to enrollment growth and higher medical costs. Debt service expenditures totaled \$5.735 billion, an increase of \$2.767 billion, or 93.2%, post-employment benefits totaled \$1.103 billion, an increase of \$201 million, or 22.2%, with growth due mainly to increased pension contributions, and direct local aid totaled \$5.599 billion, an increase of \$129 million, or 2.4%. Other financing uses totaled \$9.707 billion, an increase of \$2.417 billion, or 33.2%, with the increase due primarily to more refunding of debt compared to FY15.

As of June 30, 2016 the Commonwealth's governmental funds reported combined ending fund balance of \$5.273 billion, a decrease of \$32 million, or -.6%, from the previous year.

Governmental Funds - Fund Balance Classification
(amounts in thousands)

	2016	2015	Change	% Change
<u>Nonspendable/Restricted:</u>				
Nonspendable.....	\$ 7,910	\$ 2,318	\$ 5,592	241.2%
Restricted	1,369,761	1,790,143	(420,382)	(23.5)%
Total Nonspendable/Restricted.....	1,377,671	1,792,461	(414,790)	(23.1)%
<u>Unrestricted</u>				
Committed.....	2,421,647	2,375,021	46,626	2.0%
Assigned.....	845,567	576,632	268,935	46.6%
Unassigned.....	628,420	561,105	67,315	12.0%
Total Unrestricted	3,895,634	3,512,758	382,876	10.9%
Total fund balances.....	\$ 5,273,305	\$ 5,305,219	\$ (31,914)	(0.6)%

GAAP requires that fund balances be classified by the degree of restriction placed upon their use by constitutional, statutory, or contractual requirements, and these classifications are shown in the table on the previous page. Nonspendable amounts represent loans receivable. Restricted fund balances represent amounts restricted for Commonwealth and MSBA debt service or restricted by bond covenants, funds that are restricted in capital projects and special revenue funds, balances in the federal grants funds, and some balances held in expendable trusts. Unrestricted amounts include fund balances classified as committed, including those generated by revenue sources directed to specific purposes but with a lower level of constraints on their use than restricted balances, as well the fund balance of the Stabilization Fund. Unrestricted amounts also included prior appropriations continued, which are classified as assigned, and residual balances in the General Fund, which are classified as unassigned. A full discussion of the Commonwealth's fund balance classification policy under GASB 54 can be found in [Note 1](#) to the basic financial statements, on pages 69-71.

Proprietary Funds

Proprietary Funds report activities of the Commonwealth that are structured similar to for-profit businesses. Proprietary fund financial statements provide the same type of information as the government-wide financial statements, only in greater detail.

As discussed above, the business-type activities increased the Commonwealth's net position by approximately \$444 million.

BUDGETARY HIGHLIGHTS

The FY16 budget as enacted by the Legislature was based on an FY16 consensus tax revenue estimate of \$25.479 billion, of which approximately \$23.668 billion was to be credited to the Commonwealth's budgeted funds after adjusting for \$1.812 billion in tax revenue that is deposited directly into non-budgeted funds for transfers of sales tax revenue dedicated to the Massachusetts Bay Transportation Authority (\$985 million) and the Massachusetts School Building Authority (\$804 million), and revenue deposited in the non-budgeted Workforce Training Fund (\$22 million). The FY16 enacted budget adjusted the estimate to \$25.711 billion, including \$100 million in tax settlements (of which \$23.899 billion was to be deposited in the budgeted funds), due to several tax law changes included in the budget. Both estimates included \$122 million of capital gains revenue that under statute was to be transferred to the Stabilization Fund and would not be available for budgetary purposes.

As a result of above forecast revenue performance over the first six months of FY16, in January 2016, the FY16 tax revenue estimate was adjusted upward by \$140 million, to \$25.876 billion, (including \$125 million in settlements exceeding \$10 million each, virtually all of which were tax-related), of which \$24.065 billion was to be deposited in

the budgeted funds.

FY16 tax revenues ended the year at \$25.424 billion (including \$155 million in tax settlements exceeding \$10 million each), of which \$23.617 billion was deposited in the budgeted funds. Tax revenue deposited in the budgeted funds grew by \$443 million, or 1.9% from FY15, and was \$448 million below the final FY16 tax estimate and \$283 million below the enacted budget's FY16 tax estimate.

The FY16 General Appropriation Act (GAA) authorized approximately \$39.156 billion in spending, exclusive of approximately \$1.972 billion in required pension contributions and \$212 million in FY15 spending authorized to be continued into FY16 as part of FY15 end-of-year supplemental budgets.

Approximately \$913 million in supplemental appropriations were authorized during FY16, \$702 million of which were enacted prior to June 30, 2016. Subsequent to year end, two additional supplemental budgets were enacted totaling approximately \$211 million in new and continued appropriations, \$164 million of which was for FY16 Medicaid expenditures, with virtually all of the remainder continued to FY17 and reappropriated. The year's significant supplemental appropriation activity included:

- \$566 million for transfers to the Medical Assistance Trust Fund;
- \$164 million for Medicaid expenses;
- \$41 million for emergency housing assistance;
- \$39 million for compensation of private counsel representing indigent defendants;
- \$28 million to fund county Sheriffs;
- \$13 million for certain court judgments and settlements.

In order to maintain a balanced budget in the face of lower than projected FY16 tax revenue collections, the Governor reduced spending authorizations, or allotments, using his authority under Section 9C of Chapter 29. Those allotment reductions totaled approximately \$47 million. The Executive Office for Administration and Finance in conjunction with state departments also took action in the fourth quarter of FY16 to minimize discretionary spending to maintain a balanced budget. Finally, the following specific actions were taken in FY16 to maintain statutory budget balance:

- \$283 million in capital gains tax revenue that under statute is required to be deposited in the Stabilization Fund (\$255 million), the State Pension Fund (\$14 million), and the State Retiree Benefits Trust Fund (\$14 million) was retained in the General Fund, per a provision in the FY16 General Appropriation Act that suspended the requirement;
- \$71 million in Medicaid payments was shifted from FY16 to FY17;
- \$137 million in non-recurring revenue was generated by a tax amnesty program;
- \$113 million in debt service payments normally paid from budgeted funds was paid from a non-budgeted fund capitalized by FY15 surplus revenues;
- \$79 million in revenues was transferred to the General Fund from non-budgeted funds and state authorities;
- \$26 million was retained in the General Fund by reducing the statutorily required tobacco settlement transfer to the State Retiree Benefits Trust Fund.

FY16 budgeted revenues and other financing sources (before transfers between the budgeted funds, which are included in both spending and revenue and thus have no effect on fund balances) totaled \$40.366 billion, an increase of \$2.129 billion, or 5.6%, from FY15. Tax revenue grew by \$443 million, or 1.9%; while the economy continued to expand modestly, growth in withholding and sales tax revenue was offset by a decline in capital gains tax revenue, which according to a preliminary Department of Revenue estimate, dropped by \$299 million, or 17.9%, from \$1.669 billion in FY15 to an \$1.370 billion in FY16. (There were also declines in other non-withholding, or non-wage, income taxes, though details on these will not be available until 2015 income tax returns filed on extension are analyzed.) Federal reimbursements totaled \$10.643 billion, an increase of \$1.162 billion, or 12.3%, primarily due to growth in

reimbursements for increased Medicaid program spending, as well as increases in reimbursements for payments to hospitals that care for a disproportionate share of low income patients. Departmental revenue, which consists primarily of assessments and fees for state licenses and state services, totaled \$4.257 billion, an increase of \$404 million, or 10.5%, from FY15. Large increases in departmental revenue included \$198 million in pharmacy rebates paid to the state employee health insurance program, \$166 million in payments from the University of Massachusetts Medical School, and \$46 million in additional reimbursements by cities and towns participating in the state's health plans. Interfund transfers from non-budgeted funds totaled \$1.849 billion, an increase of \$119 million, or 6.9%, from FY15, due primarily to \$16 million in additional transfers from abandoned property revenues and \$36 million in higher fringe benefit recoveries from capital, federal grants, and non-budgeted funds.

FY16 budgeted expenditures and other financing uses, including transfers to non-budgeted funds (but before transfers between the budgeted funds) totaled \$40.454 billion, an increase of \$2.338 billion, or 6.1%, from FY15, with the increase primarily attributable to higher spending on Medicaid and other health care spending, pension contributions, and Local Aid.

Spending on programs and services totaled \$34.290 billion, an increase of \$1.656 billion, or 5.1%, from FY15. Medicaid expenditures totaled \$14.851 billion, an increase of \$1.196 billion, or 8.8%, from FY15, primarily due to provisions of the federal Affordable Care Act (ACA) that expanded eligibility for Medicaid as of January 1, 2015, and also due to base enrollment and health care cost growth. Spending on state employee health benefits paid through the Group Insurance Commission (excluding benefits paid to retirees) declined by \$16 million, or 1.0%, from \$1.646 billion to \$1.630 billion.

Budgeted debt service totaled \$2.174 billion, down \$16 million, or 0.7%, from FY15, with the decline due primarily to the payment from a non-budgeted fund of \$113 million in debt service expenditures that normally would be paid from a budgeted fund. Without that shift, debt service expenditures would have totaled \$2.288 billion, an increase of \$97 million, or 4.4%.

Interfund transfers to non-budgeted funds (primarily the Universal Health Care funds) totaled \$1.486 billion, an increase of \$482 million or 48.0%, primarily due to an increase in transfers to the Medical Assistance Trust Fund. Post-employment benefits (for pension contributions and retiree health insurance) totaled \$2.503 billion, an increase of \$216 million, or 9.5%, as the Commonwealth increased its pension contribution by 10%, or \$179 million, over FY15. Spending for direct local aid (both education aid and unrestricted aid), at \$5.568 billion, was up \$147 million, or 2.7%, from FY15.

CAPITAL ASSETS

Capital assets of the Commonwealth include land, buildings, improvements, equipment, vehicles and infrastructure. The Commonwealth's investment in capital assets for its governmental and business-type activities as of June 30, 2016 amounts to approximately \$20.781 billion, with accumulated depreciation of approximately \$8.849 billion, leaving a net book value of \$11.932 billion. Infrastructure includes assets that are normally immovable and of value only to the Commonwealth, such as roads, bridges, piers and dams. (The investments in capital assets noted above do not include capital assets owned by MassDOT.) The total increase in the Commonwealth's investment in capital assets from 2015 to 2016 was approximately \$645 million, with \$141 million in governmental activities and \$504 million in business-type activities. The major increases in the net value of capital assets was in construction in process for governmental activities and construction in process, buildings and machinery and equipment for the business-type activities.

The table below details the capital asset activity for the Commonwealth.

Capital Assets at Year - End (net of depreciation) (amounts in thousands)						
	Governmental Activities		Business - Type Activities		Total	
	2016	2015	2016	2015	2016	2015
Land.....	\$ 877,493	\$ 861,487	\$ 137,937	\$ 118,415	\$ 1,015,430	\$ 979,902
Historical treasures	—	—	1,760	1,196	1,760	1,196
Construction in process	819,321	960,752	1,048,579	758,620	1,867,900	1,719,372
Buildings	2,605,085	2,386,166	5,152,943	4,980,724	7,758,028	7,366,890
Machinery and equipment	282,812	228,921	777,807	747,841	1,060,619	976,762
Infrastructure, excluding central artery	159,007	164,996	—	—	159,007	164,996
Library collections.....	—	—	69,109	77,420	69,109	77,420
Total	\$ 4,743,718	\$ 4,602,322	\$ 7,188,135	\$ 6,684,216	\$ 11,931,853	\$ 11,286,538

Additional detail on the Commonwealth's FY16 capital asset activity can be found in [Note 5](#) to the basic financial statements ("Capital Assets") on pages 89–90.

DEBT ADMINISTRATION

The Commonwealth issues short-term and long-term debt. Debt that is general obligation in nature is backed by the full faith and credit of the Commonwealth and paid from governmental funds. Additionally, short-term notes are issued and redeemed annually.

To fund the FY16 capital budget, the Commonwealth borrowed by issuing \$2.759 billion in long-term bonds, \$2.259 billion of which was general obligation debt and \$500 million of which was special obligation debt secured by motor fuels taxes, motor vehicle license and registration fees, and future federal reimbursements for transportation spending. All new bond sales were either for general government purposes, for road and bridge repair, or unallocated as of year-end and assumed to be for general purposes, including for construction and equipment purchases. In addition, the Commonwealth issued \$1.463 billion in debt to refund already existing debt, taking advantage of continued low interest rates in FY16. During the year, the Commonwealth also issued \$1.2 billion in Revenue Anticipation Notes (RANs), which were retired in April, May and June 2016.

Approximately 17.5% percent of the Commonwealth's \$21.668 billion in general obligation debt outstanding as of June 30, 2016 was issued as variable rate bonds. Included in this variable rate debt was approximately \$402 million in auction rate securities (about 1.9% of all general obligation debt). During fiscal 2016 there were no changes to credit ratings on any of the Commonwealth's outstanding debt.

The following table details the Commonwealth's debt by type for the fiscal year compared to the prior fiscal year, excluding premiums and discounts.

Additional detail on the Commonwealth's short-term debt can be found in [Note 6](#) ("Short-Term Financing and Credit Arrangements") on pages 90-91 and [Note 7](#) ("Long-Term Obligations") on pages 91-106.

Outstanding Long - Term Debt Obligations

(amounts in thousands)

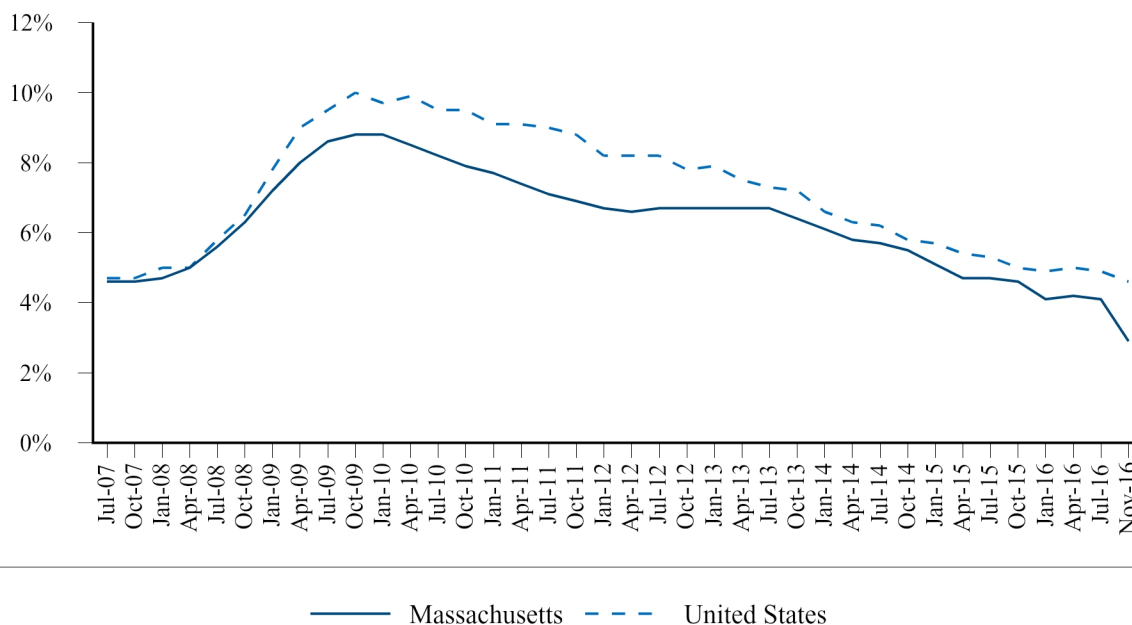
	Governmental Activities		Business - Type Activities		Total	
	2016	2015	2016	2015	2016	2015
General obligation bonds	\$ 21,668,296	\$ 20,801,956	\$ —	\$ —	\$ 21,668,296	\$ 20,801,956
Special obligation bonds (excluding GANs) ...	2,754,255	2,324,490	—	—	2,754,255	2,324,490
Revenue obligation bonds	—	—	4,438,282	4,553,105	4,438,282	4,553,105
Grant anticipation notes	657,040	699,855	—	—	657,040	699,855
Subtotal	25,079,591	23,826,301	4,438,282	4,553,105	29,517,873	28,379,406
Massachusetts School Building Authority	5,624,275	5,714,410	—	—	5,624,275	5,714,410
Total	\$ 30,703,866	\$ 29,540,711	\$ 4,438,282	\$ 4,553,105	\$ 35,142,148	\$ 34,093,816

ECONOMIC FACTORS AFFECTING NEXT YEAR'S BUDGET

The Commonwealth, with an international reputation for medical, cultural, historical and educational institutions remains the economic and educational hub of New England. The Commonwealth's economy remains diversified, but its strongest component is its knowledge-based technology and service industries and consequently the state relies heavily on a highly educated workforce. The Commonwealth is home to sixteen S&P 500 companies, among them thirteen Fortune 500 headquarters.

In December 2007, the nation entered into a recession caused by the downturn in the housing markets that worsened due to the global capital markets crisis that occurred starting in September 2008. Rates of economic decline were sharp during the recession as the nation's gross domestic product fell and unemployment hit the highest levels in decades. While the national recession ended in June 2009, recovery has been slow compared to previous recessions. The Massachusetts economy outperformed the nation's economy as a whole during and immediately following the most recent recession. Home prices fell in Massachusetts by approximately 18% at their lowest point during the recession, compared to a decline of 34% nationally. The unemployment rate for the Commonwealth rose from 5.2% in July of 2008 to a high of 9.5% in February 2011, declined to 4.2% in June 2016, and stood at 2.9% as of November 2016. Nationally, the unemployment rose from 5.8% in July 2008 to a high of 10.0 % in October 2009 (a rate that had not been seen since 1983), and had declined to 4.6% as of November 2016. Based on the "establishment survey" of employment, which is considered by most economists to be more accurate than the "household survey" upon which the unemployment rate is based, Massachusetts employment growth has exceeded the nation's both since the start and end of the most recent recession.

***Unemployment Rate
July 2007 – November 2016***



The General Appropriation Act for FY17 is based on an FY17 tax revenue estimate of approximately \$26.284 billion, (adjusted downward by approximately \$750 million from the consensus tax estimate due to below-forecast tax collections in FY16), an increase of \$860 million, or 3.4%, from FY16 actual tax collections. Of that amount, \$22.230 billion represents taxes available for budget after adjusting for \$4.054 billion in tax revenue that is allocated to state pension contributions (\$2.1981 billion), sales tax revenue dedicated to the Massachusetts Bay Transportation Authority (\$998 million) and the Massachusetts School Building Authority (\$835 million), and revenue allocated to the non-budgetary Workforce Training Fund (\$23.1 million).

Through September 30, 2016, FY17 year-to-date tax collections totaled \$6.183 billion, up \$232 million, or 3.9% from the same period in FY16, \$11 million below the year-to-date benchmark based on the \$26.284 billion FY16 tax revenue estimate. On October 14, 2016 the Secretary of Administration and Finance reduced the FY17 tax revenue estimate and tax revenues available for budget by \$175 million, due primarily to a reduced projection for FY17 sales tax revenue collections.

REQUESTS FOR INFORMATION

This financial report is designed to provide a general overview of the Commonwealth's finances and accountability for all of the Commonwealth's citizens, taxpayers, customers, investors and creditors. Questions concerning any of the information provided in this report or requests for additional information should be addressed via email to comptroller.info@state.ma.us or mail to: Commonwealth of Massachusetts, Office of the State Comptroller, 1 Ashburton Place, 9th Floor, Boston, Massachusetts, 02108. You may also download this report at: <http://www.mass.gov/comptroller/publications-and-reports/financial-reports/cafr-reports.html>.

Basic Financial Statements

Government-wide Financial Statements

Statement of Net Position

Statement of Activities

Statement of Net Position

June 30, 2016

(Amounts in thousands)

	Primary Government			Component
	Governmental Activities	Business-Type Activities	Government Wide Total	Units
ASSETS AND DEFERRED OUTFLOWS				
Current assets:				
Cash and cash equivalents.....	\$ 3,586,881	\$ 565,428	\$ 4,152,309	\$ 3,121,245
Restricted cash with fiscal agent	382,839	—	382,839	—
Short-term investments	271,744	295,633	567,377	—
Assets held in trust	—	—	—	10,812
Receivables, net of allowance for uncollectibles:				
Taxes	3,083,179	—	3,083,179	—
Federal grants and reimbursements receivable	1,835,444	103,464	1,938,908	122,043
Loans	14,347	45,648	59,995	483,527
Other receivables	342,493	666,784	1,009,277	338,499
Due from cities and towns	21,405	—	21,405	—
Due from component units	16,088	793	16,881	—
Due from primary government	—	—	—	568,257
Other current assets	—	90,698	90,698	55,327
Total current assets	9,554,420	1,768,448	11,322,868	4,699,710
Noncurrent assets:				
Cash and cash equivalents - restricted	—	523,422	523,422	922,584
Long-term investments	—	919,384	919,384	1,616,484
Investments, restricted investments and annuity contracts	2,119,274	810	2,120,084	43,598
Receivables, net of allowance for uncollectibles:				
Taxes	393,602	—	393,602	—
Federal grants and reimbursements receivable	59,935	—	59,935	—
Loans	92,841	9,583	102,424	4,298,443
Other receivables	49,843	59,771	109,614	30,122
Due from component units	9,004	—	9,004	—
Due from primary government	—	—	—	2,880
Non-depreciable capital assets	1,696,814	1,188,276	2,885,090	9,842,950
Depreciable capital assets, net	3,046,904	5,999,859	9,046,763	25,181,768
Other noncurrent assets	116	23,459	23,575	41,884
Other noncurrent assets - restricted	—	1,060,644	1,060,644	—
Total noncurrent assets	7,468,333	9,785,208	17,253,541	41,980,713
Total assets	17,022,753	11,553,656	28,576,409	46,680,423
Deferred outflows of resources:				
Deferred change in fair value of interest rate swaps	340,930	67,341	408,271	252,132
Deferred loss on refunding	178,697	124,882	303,579	348,028
Deferred outflows related to pension	6,737,657	266,498	7,004,155	390,770
Total deferred outflows of resources	7,257,284	458,721	7,716,005	990,930
Total assets and deferred outflows	24,280,037	12,012,377	36,292,414	47,671,353
LIABILITIES AND DEFERRED INFLOWS				
Current liabilities:				
Accounts payable and other liabilities	3,480,752	272,749	3,753,501	1,044,710
Accrued payroll	71,957	179,816	251,773	1,429
Compensated absences	409,398	149,512	558,910	28,078
Accrued interest payable	350,729	22,231	372,960	219,053
Tax refunds and abatements payable	1,110,450	43,881	1,154,331	—
Due to component units	554,492	193	554,685	—
Due to primary government	—	—	—	16,881
Due to federal government	23,857	—	23,857	—
Claims and judgments	11,411	—	11,411	—
Unearned revenue	—	23,531	23,531	175,943

Statement of Net Position

June 30, 2016

(Amounts in thousands)

	Primary Government			Component Units
	Governmental Activities	Business-Type Activities	Government Wide Total	
Deposits and unearned revenue.....	—	73,458	73,458	—
School construction grants payable.....	347,006	—	347,006	—
Capital leases.....	8,795	2,797	11,592	4,026
Massachusetts School Building Authority notes payable.....	450,000	—	450,000	—
Massachusetts School Building Authority bonds and unamortized premiums....	159,477	—	159,477	—
Bonds payable and unamortized premiums.....	1,642,100	384,983	2,027,083	803,026
Environmental remediation liability.....	5,421	—	5,421	—
Total current liabilities.....	8,625,845	1,153,151	9,778,996	2,293,146
Noncurrent liabilities:				
Compensated absences.....	194,092	70,869	264,961	20,626
Accrued interest payable.....	—	—	—	211,734
Due to component units.....	2,880	—	2,880	—
Due to primary government.....	—	—	—	9,004
Due to federal government - grants.....	—	7,758	7,758	—
Unearned revenue.....	—	—	—	63,416
Prizes payable.....	1,194,945	—	1,194,945	—
Capital leases.....	32,507	7,090	39,597	67,956
Bonds payable and unamortized premiums.....	24,780,841	4,053,299	28,834,140	10,947,617
Massachusetts School Building Authority bonds and unamortized premiums....	6,039,054	—	6,039,054	—
School construction grants payable.....	533,531	—	533,531	—
Environmental remediation liability.....	525,428	—	525,428	—
Liability for derivative instruments.....	340,930	92,391	433,321	493,747
Net pension liability.....	32,855,715	718,960	33,574,675	1,784,255
Post-employment benefits obligations (other than pensions).....	6,466,000	—	6,466,000	990,382
Other noncurrent liabilities.....	414,397	124,086	538,483	189,797
Total noncurrent liabilities.....	73,380,320	5,074,453	78,454,773	14,778,534
Total liabilities.....	82,006,165	6,227,604	88,233,769	17,071,680
Deferred inflows of resources:				
Deferred service concession arrangements.....	—	15,854	15,854	—
Deferred inflows related to pension.....	712,269	28,976	741,245	29,909
Deferred gain on refunding.....	201,548	110	201,658	208
Governmental voluntary nonexchange transactions.....	—	3,668	3,668	—
Total deferred inflows of resources.....	913,817	48,608	962,425	30,117
Total liabilities and deferred inflows.....	82,919,982	6,276,212	89,196,194	17,101,797
NET POSITION				
Net investment in capital assets.....	(1,067,098)	3,311,658	2,244,560	28,394,982
Restricted for:				
Unemployment benefits.....	—	1,478,053	1,478,053	—
Retirement of indebtedness.....	1,216,986	—	1,216,986	—
Higher education endowment funds.....	—	18,886	18,886	—
Higher education academic support and programs.....	—	2,080	2,080	—
Higher education scholarships and fellowships:				
Nonexpendable.....	—	3,327	3,327	—
Expendable.....	—	7,059	7,059	—
Other nonexpendable purposes.....	—	3,366	3,366	—
Capital projects - expendable purposes.....	—	2,319	2,319	—
Other purposes.....	321,676	230,750	552,426	3,536,026
Unrestricted (deficits).....	(59,111,509)	678,667	(58,432,842)	(1,361,452)
Total net position.....	\$ (58,639,945)	\$ 5,736,165	\$ (52,903,780)	\$ 30,569,556

The notes to the financial statements are an integral part of this statement.

(concluded)

Statement of Activities

Fiscal Year Ended June 30, 2016

(Amounts in thousands)

Functions/Programs	Expenses	Program Revenues			Net (Expenses) Revenues and Changes in Net Assets				Component Units
		Charges for Services	Operating Grants and Contributions	Capital Grants and Contributions	Primary Government				
					Governmental Activities	Business- Type Activities	Total		
Primary government:									
Governmental Activities:									
General government	\$ 2,616,051	\$ 565,434	\$ 685,831	\$ —	\$ (1,364,786)	\$ —	\$ (1,364,786)	\$ —	
Judiciary	1,154,038	100,568	2,083	—	(1,051,387)	—	(1,051,387)	—	
Direct local aid	5,598,687	—	—	—	(5,598,687)	—	(5,598,687)	—	
Medicaid	16,825,110	841,697	9,782,404	76,898	(6,124,111)	—	(6,124,111)	—	
Group health insurance.....	1,632,703	799,011	—	—	(833,692)	—	(833,692)	—	
Energy and environmental affairs.....	1,069,510	289,738	72,634	—	(707,138)	—	(707,138)	—	
Housing and economic development	1,367,957	173,941	459,802	—	(734,214)	—	(734,214)	—	
Health and human services.....	7,912,817	1,224,967	2,552,023	—	(4,135,827)	—	(4,135,827)	—	
Transportation and public works.....	2,711,910	577,292	92	8,861	(2,125,665)	—	(2,125,665)	—	
Early elementary and secondary education.....	5,420,052	7,508	1,218,182	—	(4,194,362)	—	(4,194,362)	—	
Public safety and homeland security	2,746,612	284,264	226,952	—	(2,235,396)	—	(2,235,396)	—	
Labor and workforce development.....	324,678	38,581	158,084	—	(128,013)	—	(128,013)	—	
Lottery	4,299,592	5,405,128	—	—	1,105,536	—	1,105,536	—	
Interest (unallocated).....	1,250,004	—	—	—	(1,250,004)	—	(1,250,004)	—	
Total governmental activities.....	54,929,721	10,308,129	15,158,087	85,759	(29,377,746)	—	(29,377,746)	—	
Business-Type Activities:									
Unemployment Compensation	1,499,811	1,611,096	46,421	—	—	157,706	157,706	—	
Higher Education:									
University of Massachusetts.....	3,151,215	1,875,144	535,179	121,298	—	(619,594)	(619,594)	—	
State Universities.....	1,002,577	616,025	72,934	47,628	—	(265,990)	(265,990)	—	
Community Colleges.....	928,067	274,252	237,289	96,788	—	(319,738)	(319,738)	—	
Total business-type activities.....	6,581,670	4,376,517	891,823	265,714	—	(1,047,616)	(1,047,616)	—	
Total primary government.....	\$ 61,511,391	\$ 14,684,646	\$ 16,049,910	\$ 351,473	(29,377,746)	(1,047,616)	(30,425,362)	—	
Component Units:									
Massachusetts Department of Transportation	\$ 5,466,919	\$ 1,500,584	\$ 2,100,303	\$ 2,667,175	—	—	—	\$ 801,143	
Commonwealth Health Insurance Connector.....	573,992	526,845	32,336	—	—	—	—	(14,811)	
Massachusetts Clean Water Trust.....	149,662	141,346	28,927	76,519	—	—	—	97,130	
Other nonmajor component units	504,635	360,981	56,800	13,872	—	—	—	(72,982)	
Total component units.....	\$ 6,695,208	\$ 2,529,756	\$ 2,218,366	\$ 2,757,566	—	—	—	810,480	

(continued)

	Primary Government			Component Units
	Governmental Activities	Business- Type Activities	Total	
General revenues:				
Taxes:				
Income	14,125,264	—	14,125,264	—
Sales taxes	6,107,492	—	6,107,492	—
Corporate taxes	2,439,176	—	2,439,176	—
Motor and special fuel taxes	768,465	—	768,465	—
Other taxes	2,235,906	—	2,235,906	—
Miscellaneous:				
Investment earnings/(loss)	36,773	(129,353)	(92,580)	759
Tobacco settlement	261,616	—	261,616	—
Contribution from municipalities	66,789	—	66,789	—
Other revenue	795,816	374,794	1,170,610	29,644
Transfers	(1,246,055)	1,246,055	—	—
Total general revenues and transfers	25,591,242	1,491,496	27,082,738	30,403
Change in net position	(3,786,504)	443,880	(3,342,624)	840,883
Net position (deficits) - beginning, as restated	(54,853,441)	5,292,285	(49,561,156)	29,728,673
Net position (deficits) - ending	\$ (58,639,945)	\$ 5,736,165	\$ (52,903,780)	\$ 30,569,556

The notes to the financial statements are an integral part of this statement.

(concluded)



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Governmental Fund Financial Statements

Balance Sheet
Governmental Funds
June 30, 2016
(Amounts in thousands)

	General	Lotteries	Massachusetts School Building Authority	Other Governmental Funds	Total
ASSETS					
Cash and cash equivalents	\$ 1,522,094	\$ 72,584	\$ 283,977	\$ 1,708,226	\$ 3,586,881
Restricted cash with fiscal agent	—	—	169,509	213,330	382,839
Investments and restricted investments	271,744	—	924,329	—	1,196,073
Receivables, net of allowance for uncollectibles:					
Taxes	3,247,941	—	61,096	167,744	3,476,781
Due from federal government	1,550,119	—	—	345,260	1,895,379
Loan receivable	—	—	99,278	7,910	107,188
Other receivables	270,495	4,369	8,995	104,988	388,847
Due from cities and towns	21,405	—	—	—	21,405
Due from other funds	19,271	—	—	87,791	107,062
Due from component units	505	—	—	15,583	16,088
Total assets	\$ 6,903,574	\$ 76,953	\$ 1,547,184	\$ 2,650,832	\$ 11,178,543
LIABILITIES AND FUND BALANCES					
Liabilities:					
Accounts payable	\$ 2,577,565	\$ 68,616	1,256	\$ 772,878	\$ 3,420,315
Accrued payroll	62,896	—	—	9,061	71,957
Compensated absences	11,107	—	—	9	11,116
Tax refunds and abatements payable	1,108,518	—	868	1,064	1,110,450
Due to other funds	—	—	—	107,062	107,062
Due to component units	58,849	—	—	495,643	554,492
Due to federal government	23,857	—	—	—	23,857
Claims and judgments	11,411	—	—	—	11,411
School construction grants payable	—	—	30,761	—	30,761
Other accrued liabilities	—	—	—	60,437	60,437
Total liabilities	3,854,203	68,616	32,885	1,446,154	5,401,858
Deferred inflows of resources	474,980	6,136	—	22,264	503,380
Total liabilities and deferred inflows of resources	4,329,183	74,752	32,885	1,468,418	5,905,238
Fund balances:					
Nonspendable	—	—	—	7,910	7,910
Restricted	—	—	924,329	445,432	1,369,761
Committed	1,291,514	2,201	—	1,127,932	2,421,647
Assigned	109,328	—	589,970	146,269	845,567
Unassigned (deficits)	1,173,549	—	—	(545,129)	628,420
Fund balances	2,574,391	2,201	1,514,299	1,182,414	5,273,305
Total liabilities and fund balances	\$ 6,903,574	\$ 76,953	\$ 1,547,184	\$ 2,650,832	\$ 11,178,543

The notes to the financial statements are an integral part of this statement.

Reconciliation of Governmental Fund Balances to the Statement of Net Position

June 30, 2016
(Amounts in thousands)

Total fund balances - governmental funds.....	\$	5,273,305
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Amounts reported for governmental activities in the statement of net position are different because:

Capital assets used in governmental activities are not financial resources and, therefore, are not reported in the funds. Those assets consist of:

Capital assets not being depreciated.....	1,696,814	
Capital assets being depreciated, net.....	3,046,904	
Capital assets, net of accumulated depreciation		4,743,718

Revenues are not available soon enough after year end to pay for the current period's expenditures and therefore are unavailable deferred inflows of resources in the governmental funds.....		503,380
---	--	---------

Deferred inflows of resources are not reported in the governmental funds:

Gain on refunding.....	(201,548)	
Pension related	(712,269)	
Total deferred inflow of resources.....		(913,817)

Deferred outflows of resources are not reported in the governmental funds:

Loss on refunding	178,697	
Pension related	6,737,657	
Total deferred outflow of resources.....		6,916,354

Massachusetts School Building Authority assets and deferred outflows.....		3,605
---	--	-------

Lottery annuity contracts.....		1,194,945
--------------------------------	--	-----------

Due from component units		9,004
--------------------------------	--	-------

Certain liabilities, including bonds payable, are not due and payable in the current period and therefore are not reported in the funds. These liabilities include:

Retirement systems' net pension liability	(32,855,715)	
Net post-employment benefits obligations.....	(6,466,000)	
Commonwealth bonded debt.....	(25,079,591)	
Unamortized bond premiums	(1,343,350)	
Accrued interest on bonds	(350,729)	
Massachusetts School Building Authority notes payable.....	(450,000)	
Massachusetts School Building Authority bonded debt.....	(6,198,531)	
Massachusetts School Building Authority grants to municipalities.....	(849,776)	
Prizes payable.....	(1,194,945)	
Capital leases	(41,302)	
Environmental remediation liability.....	(530,849)	
Employee benefits, including compensated absences, health insurance benefits and other compensation claims.....	(1,009,651)	
Long-term liabilities (including current portions)		(76,370,439)

Total net (deficit) - governmental activities.....	\$	<u>(58,639,945)</u>
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The notes to the financial statements are an integral part of this statement.

Statement of Revenues, Expenditures and Changes in Fund Balances
Governmental Funds
Fiscal Year Ended June 30, 2016
(Amounts in thousands)

	General	Lotteries	Massachusetts School Building Authority	Other Governmental Funds	Total
REVENUES					
Taxes	\$ 22,200,711	\$ 562	\$ 799,359	\$ 2,745,716	\$ 25,746,348
Assessments	396,809	—	—	707,253	1,104,062
Federal grants and reimbursements	10,677,089	—	—	4,555,556	15,232,645
Departmental	2,861,797	5,404,244	—	1,436,112	9,702,153
Miscellaneous	553,986	1,618	112,900	538,535	1,207,039
Total revenues	36,690,392	5,406,424	912,259	9,983,172	52,992,247
EXPENDITURES					
Current:					
Legislature	61,368	—	—	—	61,368
Judiciary	877,785	—	—	2,504	880,289
Inspector General	4,315	—	—	264	4,579
Governor and Lieutenant Governor	6,576	—	—	27	6,603
Secretary of the Commonwealth	39,322	—	—	4,830	44,152
Treasurer and Receiver-General	188,205	4,314,215	26,982	1,269,989	5,799,391
Auditor of the Commonwealth	18,354	—	—	149	18,503
Attorney General	43,880	—	—	23,118	66,998
Ethics Commission	2,034	—	—	—	2,034
District Attorney	114,084	—	—	9,892	123,976
Office of Campaign and Political Finance	1,516	—	—	—	1,516
Sheriff's Departments	603,242	—	—	13,108	616,350
Disabled Persons Protection Commission	2,943	—	—	66	3,009
Board of Library Commissioners	25,333	—	—	2,915	28,248
Massachusetts Gaming Commission	—	—	—	33,691	33,691
Comptroller	13,911	—	—	2,793	16,704
Administration and Finance	2,092,560	—	—	323,575	2,416,135
Energy and Environmental Affairs	206,446	—	—	229,831	436,277
Health and Human Services	5,424,693	—	—	1,976,878	7,401,571
Massachusetts Department of Transportation	—	—	—	2,595,496	2,595,496
Office of the Child Advocate	595	—	—	—	595
Executive Office of Education	2,458,554	—	—	1,019,350	3,477,904
Center for Health and Information Analysis	26,625	—	—	553	27,178
Massachusetts School Building Assistance	—	—	626,000	—	626,000
Public Safety and Homeland Security	1,143,352	—	—	241,781	1,385,133
Housing and Economic Development	513,419	—	—	535,064	1,048,483
Labor and Workforce development	42,278	—	—	234,656	276,934
Medicaid	15,066,432	—	—	1,758,678	16,825,110
Post employment benefits	1,059,297	—	1,214	42,218	1,102,729
Direct local aid	5,493,654	—	—	105,033	5,598,687
Capital outlay:					
Local aid	—	—	—	1,383	1,383
Capital acquisition and construction	—	—	—	1,162,283	1,162,283
Debt service/commercial paper repayments	—	—	3,264,690	2,470,117	5,734,807
Principal on current refundings	—	—	—	250,000	250,000
Total expenditures	35,530,773	4,314,215	3,918,886	14,310,242	58,074,116
Excess (deficiency) of revenues over (under) expenditures	1,159,619	1,092,209	(3,006,627)	(4,327,070)	(5,081,869)
OTHER FINANCING SOURCES					
Bonds premium	—	—	144,709	468,029	612,738
Issuance of general and special obligation bonds	—	—	1,209,977	2,759,209	3,969,186
Issuance of current refunding bonds	—	—	—	250,000	250,000
Issuance of advance refunding bonds	—	—	—	1,212,655	1,212,655
Commercial paper proceeds	—	—	2,834,000	—	2,834,000
Proceeds of capital leases	30,707	—	—	—	30,707
Transfers in for debt service	—	—	—	2,423,292	2,423,292
Transfers in	1,739,219	—	—	1,685,542	3,424,761
Total other financing sources	1,769,926	—	4,188,686	8,798,727	14,757,339
OTHER FINANCING USES					
Payments to refunding bond escrow agent	—	—	1,189,246	1,424,030	2,613,276
Transfers out	897,833	1,092,130	—	1,254,060	3,244,023
Transfers of appropriations	1,201,542	—	—	1,316	1,202,858
Transfers of bond proceeds	—	—	—	223,935	223,935
Transfers out for debt service	999,252	—	—	1,424,040	2,423,292
Total other financing uses	3,098,627	1,092,130	1,189,246	4,327,381	9,707,384
Total other financing sources and uses	(1,328,701)	(1,092,130)	2,999,440	4,471,346	5,049,955
Net change in fund balances (deficits)	(169,082)	79	(7,187)	144,276	(31,914)
Fund balances at beginning of year	2,743,473	2,122	1,521,486	1,038,138	5,305,219
Fund balances at end of year	\$ 2,574,391	\$ 2,201	\$ 1,514,299	\$ 1,182,414	\$ 5,273,305

The notes to the financial statements are an integral part of this statement.

Reconciliation of Statement of Revenues, Expenditures and Changes in Fund Balances of Governmental Funds to the Statement of Activities

For the fiscal year ended June 30, 2016

(Amounts in thousands)

Net change in fund balances - total governmental funds	\$ (31,914)
---	--------------------

Amounts reported for governmental activities in the statement of activities are different because:

Governmental funds report capital outlays as expenditures. However, in the statement of activities, the cost of those assets is allocated over their estimated useful lives and reported as depreciation expense. This amount represents capital outlays including increases to construction in process, but excluding reductions and dispositions	407,003
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Current year depreciation expense	(265,607)
---	-----------

Amounts presented in the statement of activities, but not in the change in fund balances due to difference in revenue and expense recognition under different bases of accounting.....	(52,759)
--	----------

The issuance of long - term debt provides current financial resources to governmental funds, while the repayment of principal of long - term debt consumes the current financial resources of governmental funds. Neither transaction has any effect on net assets. Also, governmental funds report the effect of premiums, discounts, and similar items when debt is first issued, whereas these amounts are deferred and amortized as part of the statement of activities. This amount is the net effect of these differences in the treatment of long-term debt and related items.....	(1,771,429)
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Decrease in capital leases.....	1,626
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Massachusetts School Building Authority	244,500
---	---------

Net pension costs	(1,156,464)
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Net underfunding of post employment benefit obligations	(861,000)
---	-----------

Some expenses reported in the statement of activities do not require the use of current financial resources and therefore, are not reported as expenditures in governmental funds. These expenses include accrued interest, lottery prizes, claims and benefits that are reported in the statement of activities, but not in funds	(300,460)
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Change in net position of governmental activities	<u>\$ (3,786,504)</u>
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The notes to the financial statements are an integral part of this statement



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Proprietary Fund Financial Statements

Statement of Net Position
Proprietary Funds
June 30, 2016
(Amounts in thousands)

	Unemployment Compensation Trust Fund	University of Massachusetts	State Universities	Community Colleges	Total
ASSETS AND DEFERRED OUTFLOWS:					
Current assets:					
Cash and cash equivalents.....	\$ 25,534	\$ 110,095	\$ 314,864	\$ 114,935	\$ 565,428
Short-term investments	—	206,266	25,567	63,800	295,633
Receivables, net of allowance for uncollectibles:					
Federal grants and reimbursements receivable.....	—	96,275	1,066	6,123	103,464
Loans	—	44,456	1,179	13	45,648
Other receivables	466,644	103,447	23,204	37,747	631,042
Due from affiliates	—	35,724	18	—	35,742
Due from foundation	—	69	602	122	793
Other current assets	—	81,595	4,793	4,310	90,698
Total current assets.....	492,178	677,927	371,293	227,050	1,768,448
Noncurrent assets:					
Cash and cash equivalents - restricted.....	—	494,357	29,027	38	523,422
Long-term investments	—	734,205	144,542	40,637	919,384
Investments and restricted investments	—	—	810	—	810
Accounts receivable, net.....	—	56,121	3,600	50	59,771
Loans receivable, net	—	—	9,207	376	9,583
Non-depreciable capital assets.....	—	760,545	244,288	183,443	1,188,276
Depreciable capital assets, net.....	—	3,855,231	1,758,153	386,475	5,999,859
Other noncurrent assets	—	9,345	14,102	12	23,459
Other noncurrent assets - restricted	1,060,644	—	—	—	1,060,644
Total noncurrent assets.....	1,060,644	5,909,804	2,203,729	611,031	9,785,208
Total assets.....	1,552,822	6,587,731	2,575,022	838,081	11,553,656
Deferred outflows of resources:					
Deferred change in fair value of interest rate swaps	—	65,428	—	1,913	67,341
Deferred outflows related to pensions	—	147,153	74,338	45,007	266,498
Loss on debt refunding	—	80,851	44,031	—	124,882
Total deferred outflows of resources.....	—	293,432	118,369	46,920	458,721
Total assets and deferred outflows.....	1,552,822	6,881,163	2,693,391	885,001	12,012,377
LIABILITIES AND DEFERRED INFLOWS:					
Current liabilities:					
Accounts payable and other liabilities.....	\$ 30,888	\$ 177,211	\$ 36,170	\$ 28,480	\$ 272,749
Accrued payroll	—	112,521	39,293	28,002	179,816
Compensated absences	—	80,730	35,136	33,646	149,512
Accrued interest payable	—	21,976	125	130	22,231
Tax refunds and abatements payable.....	43,881	—	—	—	43,881
Unearned revenue	—	—	19,624	3,907	23,531
Student deposits and unearned revenues	—	44,041	6,052	23,365	73,458
Due to Foundation	—	193	—	—	193
Capital leases	—	169	1,223	1,405	2,797
Bonds, notes payable and other obligations	—	337,996	42,867	4,120	384,983
Total current liabilities.....	74,769	774,837	180,490	123,055	1,153,151
Noncurrent liabilities:					
Compensated absences	—	35,671	18,321	16,877	70,869
Due to federal government - grants	—	—	7,752	6	7,758
Capital leases	—	429	5,331	1,330	7,090
Bonds, notes payable and other obligations	—	2,646,626	1,349,154	57,519	4,053,299
Liability for derivative instruments	—	90,478	—	1,913	92,391
Net pension liability.....	—	408,418	179,238	131,304	718,960
Other noncurrent liabilities.....	—	112,561	6,637	4,888	124,086
Total noncurrent liabilities.....	—	3,294,183	1,566,433	213,837	5,074,453
Total liabilities.....	74,769	4,069,020	1,746,923	336,892	6,227,604

Statement of Net Position
Proprietary Funds
June 30, 2016
(Amounts in thousands)

	Unemployment Compensation Trust Fund	University of Massachusetts	State Universities	Community Colleges	Total
Deferred inflows of resources:					
Deferred service concession arrangements.....	—	—	15,237	617	15,854
Deferred inflows related to pensions	—	12,050	6,277	10,649	28,976
Gain on refunding	—	—	110	—	110
Governmental voluntary nonexchange transactions	—	—	—	3,668	3,668
Total deferred inflows of resources	—	12,050	21,624	14,934	48,608
Total liabilities and deferred inflows	74,769	4,081,070	1,768,547	351,826	6,276,212
NET POSITION:					
Net investment in capital assets	—	2,013,966	791,318	506,374	3,311,658
Restricted for:					
Unemployment benefits	1,478,053	—	—	—	1,478,053
Higher education endowment funds	—	18,384	115	387	18,886
Higher education academic support and programs	—	—	953	1,127	2,080
Higher education scholarships and fellowships:					
Nonexpendable	—	—	3,327	—	3,327
Expendable	—	—	5,527	1,532	7,059
Other nonexpendable purposes	—	—	3,366	—	3,366
Capital projects - expendable purposes	—	—	2,319	—	2,319
Other purposes	—	218,272	11,005	1,473	230,750
Unrestricted	—	549,471	106,914	22,282	678,667
Total net position	\$ 1,478,053	\$ 2,800,093	\$ 924,844	\$ 533,175	\$ 5,736,165

The notes to the financial statements are an integral part of this statement.

(concluded)

Statement of Revenues, Expenses and Changes in Net Position

Proprietary Funds

Fiscal Year Ended June 30, 2016

(Amounts in thousands)

	Unemployment Compensation Trust Fund	University of Massachusetts	State Universities	Community Colleges	Total
Operating revenues:					
Unemployment compensation contribution	\$ 1,575,111	\$ —	\$ —	\$ —	\$ 1,575,111
Net tuition and fees.....	—	826,815	380,157	213,483	1,420,455
Grants and reimbursements	—	528,352	72,934	237,289	838,575
Auxiliary enterprises	—	383,281	119,014	17,709	520,004
Sales & services.....	—	551,944	102,314	25,891	680,149
Miscellaneous	35,985	113,104	14,540	17,169	180,798
Total operating revenues.....	1,611,096	2,403,496	688,959	511,541	5,215,092
Operating expenses:					
Unemployment compensation	1,499,811	—	—	—	1,499,811
Instruction.....	—	794,691	318,682	321,559	1,434,932
Research	—	434,213	1,633	14	435,860
Academic support.....	—	181,057	90,215	105,013	376,285
Student services	—	141,915	103,894	123,707	369,516
Scholarships and fellowships	—	44,645	26,142	62,076	132,863
Public service	—	71,457	6,192	10,247	87,896
Operation and maintenance of plant.....	—	228,406	89,046	77,293	394,745
Institutional support.....	—	248,379	120,347	120,323	489,049
Other operating expenses	—	458,036	2,650	172	460,858
Depreciation	—	240,865	93,119	34,026	368,010
Auxiliary operations	—	297,089	136,761	17,422	451,272
Total operating expenses.....	1,499,811	3,140,753	988,681	871,852	6,501,097
Operating income/(loss)	111,285	(737,257)	(299,722)	(360,311)	(1,286,005)
Nonoperating revenues/(expenses):					
Other federal revenues.....	25,121	6,827	—	—	31,948
Other revenues.....	—	306,764	68,030	—	374,794
Other expenses	—	(10,462)	(13,896)	(56,215)	(80,573)
Investment income/(loss)	21,300	(87,746)	(39,800)	(1,807)	(108,053)
Total nonoperating revenues/(expenses).....	46,421	215,383	14,334	(58,022)	218,116
Income/(loss) before capital grants and contributions and transfers	157,706	(521,874)	(285,388)	(418,333)	(1,067,889)
Capital grants and contributions.....	—	121,298	47,628	96,788	265,714
Transfers, net	—	533,321	307,030	405,704	1,246,055
Total capital grants and contributions and transfers...	—	654,619	354,658	502,492	1,511,769
Change in net position	157,706	132,745	69,270	84,159	443,880
Total net position - beginning.....	1,320,347	2,667,348	855,574	449,016	5,292,285
Total net position - ending	\$ 1,478,053	\$ 2,800,093	\$ 924,844	\$ 533,175	\$ 5,736,165

The notes to the financial statements are an integral part of this statement.

Statement of Cash Flows

Proprietary Funds

June 30, 2016

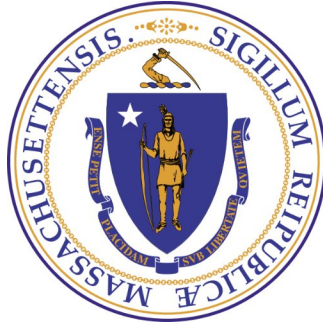
(Amounts in thousands)

	Unemployment Compensation Trust Fund	University of Massachusetts	State Universities	Community Colleges	Total
CASH FLOWS FROM OPERATING ACTIVITIES					
Collection of unemployment contributions.....	\$ 1,418,447	\$ —	\$ —	\$ —	\$ 1,418,447
Tuition, residence, dining and other student fees.....	—	829,654	386,148	226,296	1,442,098
Research grants and contracts.....	—	791,533	170,021	260,950	1,222,504
Payments to suppliers.....	—	(1,295,537)	(257,262)	(216,520)	(1,769,319)
Payments to employees.....	—	(1,798,326)	(496,336)	(486,498)	(2,781,160)
Payments to students.....	—	(50,231)	(17,364)	(62,663)	(130,258)
Payments for unemployment benefits.....	(1,496,858)	—	—	—	(1,496,858)
Collection of loans to students and employees.....	—	7,099	1,284	43	8,426
Income from contract services.....	—	—	3,699	2,093	5,792
Maintenance costs.....	—	—	(1,215)	—	(1,215)
Auxiliary enterprise charges.....	—	369,715	71,921	(334)	441,302
Other receipts.....	35,985	575,240	14,733	29,472	655,430
Net cash used by operating activities.....	(42,426)	(570,853)	(124,371)	(247,161)	(984,811)
CASH FLOW FROM NON-CAPITAL FINANCING ACTIVITIES					
State appropriations.....	—	694,402	254,667	270,889	1,219,958
Grants and contracts.....	25,121	109,401	2,038	1,646	138,206
Student organizations agency transactions.....	—	527	—	(254)	273
Principal on notes payable.....	—	—	—	(311)	(311)
Net cash provided by non-capital financing activities.....	25,121	804,330	256,705	271,970	1,358,126
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES					
Capital appropriations.....	—	121,297	33,742	16,047	171,086
Purchases of capital assets.....	—	(512,881)	(181,422)	(35,013)	(729,316)
Proceeds from sales of capital assets.....	—	—	2,238	1,110	3,348
Proceeds from debt issuance.....	—	8,668	228,123	3,430	240,221
Other capital asset activity.....	—	78,639	(217,365)	1,581	(137,145)
Investments held by bond trustee, net.....	—	—	(381)	—	(381)
Principal paid on capital debt and leases.....	—	(98,287)	(46,390)	(5,141)	(149,818)
Interest paid on capital debt and leases.....	—	(113,746)	(71,391)	(2,596)	(187,733)
Net cash (used in) capital financing activities.....	—	(516,310)	(252,846)	(20,582)	(789,738)
CASH FLOWS FROM INVESTING ACTIVITIES					
Proceeds from sales and maturities of investments.....	—	1,138,588	82,460	69,611	1,290,659
Purchases of investments.....	—	8,862	(74,009)	(69,484)	(134,631)
Investment earnings.....	21,300	(1,090,191)	7,636	556	(1,060,699)
Net cash provided by investing activities.....	21,300	57,259	16,087	683	95,329
Net increase (decrease) in cash and cash equivalents.....	3,995	(225,574)	(104,425)	4,910	(321,094)
Cash and cash equivalents, restricted cash and cash equivalents at the beginning of the fiscal year....	21,539	830,026	448,316	110,063	1,409,944
Cash and cash equivalents, restricted cash and cash equivalents at the end of the fiscal year....	\$ 25,534	\$ 604,452	\$ 343,891	\$ 114,973	\$ 1,088,850
Reconciliation of net operating revenues and expenses to cash used by operating activities:					
Operating income/(loss).....	\$ 111,285	\$ (737,257)	\$ (299,722)	\$ (360,311)	\$ (1,286,005)
Adjustments to reconcile operating income/(loss) to net cash used by operating activities:					
Depreciation expense.....	—	240,865	93,119	34,026	368,010
Fringe benefits paid by the Commonwealth.....	—	—	68,240	77,906	146,146
Changes in assets and liabilities:					
Accounts receivable, prepaids and other assets.....	(104,496)	(64,921)	6,364	(5,071)	(168,124)
Accounts payable, accrued liabilities and benefits.....	2,953	(23,656)	(1,247)	(4,684)	(26,634)
Student deposits and other unearned and deferred revenues.....	—	(4,769)	(4,583)	3,815	(5,537)
Other noncurrent assets - restricted and liabilities.....	(52,168)	18,885	13,458	7,158	(12,667)
Net cash used by operating activities.....	\$ (42,426)	\$ (570,853)	\$ (124,371)	\$ (247,161)	\$ (984,811)

Non-cash investing, capital and financing activities:

The University System had approximately \$63 million of non-cash activities, and the State Universities and Community Colleges had approximately \$220 million and \$135 million, respectively, of non-cash activities, including new capital leases.

The notes to the financial statements are an integral part of this statement.



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Fiduciary Fund Financial Statements

Statement of Net Position

Fiduciary Funds

June 30, 2016

(Amounts in thousands)

	Post-Employment Benefits Trust Funds	External Investment Trust Funds	Private Purpose Trust Funds	Agency Funds
ASSETS				
Cash and cash equivalents	\$ 239,832	\$ 3,170,718	\$ 666	\$ 587,095
Short-term investments	—	39,467	—	—
Net investment in PRIT at fair value	49,216,471	11,476,334	—	—
Investments, restricted investments and annuity contracts	—	—	—	1,777,617
Receivables, net of allowance for uncollectibles:				
Taxes	—	—	—	34,638
Other receivables	203,251	1,264	—	133,268
Other assets	129,631	—	—	—
Total assets	\$ 49,789,185	\$ 14,687,783	\$ 666	\$ 2,532,618
LIABILITIES				
Accounts payable and other accrued liabilities	\$ 9,914	\$ 19,866	\$ —	\$ 76,743
Due to cities and towns	—	—	—	46,754
Due to federal government	—	—	—	4
Lottery prizes payable	—	—	—	1,194,945
Agency liabilities	—	—	—	1,214,172
Total liabilities	9,914	19,866	—	\$ 2,532,618
NET POSITION				
Restricted for employees' post-employment benefits	49,779,271	—	—	
Restricted for external investment trust fund participants	—	14,667,917	—	
Restricted for private purposes	—	—	666	
Total net position	\$ 49,779,271	\$ 14,667,917	\$ 666	

The notes to the financial statements are an integral part of this statement.

Statement of Changes in Net Position

Fiduciary Funds

Fiscal Year Ended June 30, 2016

(Amounts in thousands)

	Post-Employment Benefits Trust Funds	External Investment Trust Funds	Private Purpose Trust Funds
ADDITIONS			
Contribution:			
Employer contributions - Commonwealth	\$ 1,163,103	\$ —	\$ —
Non-employer contributions - Commonwealth	1,146,413	—	—
Employer contributions - other employers	16,642	—	—
Employee contributions	1,291,370	—	—
ERIP funding contribution - Commonwealth	29,093	—	—
Boston teachers' contribution from Commonwealth	120,434	—	—
Other additions	480,752	848,243	—
Proceeds from sale of units	—	22,977,309	—
Total contributions	4,247,807	23,825,552	—
Net investment gain/(loss):			
Investment gain/(loss)	1,134,371	533,458	—
Less: investment expense	(255,624)	(291,096)	—
Net investment gain/(loss)	878,747	242,362	—
Total additions	5,126,554	24,067,914	—
DEDUCTIONS			
Administration	45,005	—	—
Retirement benefits and refunds	5,325,191	923,710	—
Payments to State Boston Retirement System	120,434	—	—
Other deductions	103,319	—	—
Cost of units redeemed	—	22,172,892	—
Distribution to unit holders	—	11,990	—
Total deductions	5,593,949	23,108,592	—
Net increase/(decrease)	(467,395)	959,322	—
Net position - beginning	50,246,666	13,708,595	666
Net position - ending	\$ 49,779,271	\$ 14,667,917	\$ 666

The notes to the financial statements are an integral part of this statement.



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***Discretely Presented
Component Unit
Financial Statements***

Statement of Net Position

Component Units

June 30, 2016

(Amounts in thousands)

	Massachusetts Department of Transportation	Commonwealth Health Insurance Connector	Massachusetts Clean Water Trust	Nonmajor Component Units	Total
ASSETS AND DEFERRED OUTFLOWS					
Current assets:					
Cash and cash equivalents	\$ 353,207	\$ 39,452	\$ 486,629	\$ 175,609	\$ 1,054,897
Short-term investments	—	—	97,886	369,613	467,499
Restricted cash and investments	1,362,262	19	—	236,568	1,598,849
Assets held in trust	—	—	10,812	—	10,812
Receivables, net of allowance for uncollectibles:					
Federal grants and reimbursement receivable	62,679	9,555	49,667	142	122,043
Loans	—	7,010	384,195	92,322	483,527
Other receivables	148,214	86,965	55,879	47,441	338,499
Due from primary government	502,546	6,669	—	59,042	568,257
Inventory	—	—	—	68	68
Other current assets	48,582	1,004	—	5,673	55,259
Total current assets	2,477,490	150,674	1,085,068	986,478	4,699,710
Noncurrent assets:					
Cash and cash equivalents - restricted	898,209	—	—	24,375	922,584
Long-term investments	—	—	956,260	660,224	1,616,484
Restricted investments and annuity contracts	—	—	—	43,598	43,598
Accounts receivables, net	15,773	—	—	14,349	30,122
Loans receivables, net	—	—	3,664,872	633,571	4,298,443
Due from primary government	2,880	—	—	—	2,880
Non-depreciable capital assets	9,633,211	—	—	209,739	9,842,950
Depreciable capital assets, net	24,256,365	480	—	924,923	25,181,768
Other noncurrent assets	25,626	—	1,895	14,363	41,884
Total noncurrent assets	34,832,064	480	4,623,027	2,525,142	41,980,713
Total assets	37,309,554	151,154	5,708,095	3,511,620	46,680,423
Deferred outflows of resources:					
Deferred change in fair value of interest rate swaps	245,671	—	6,461	—	252,132
Deferred loss on refunding	253,579	—	94,449	—	348,028
Deferred outflows related to pension	381,872	—	—	8,898	390,770
Total deferred outflows of resources	881,122	—	100,910	8,898	990,930
Total assets and deferred outflows	38,190,676	151,154	5,809,005	3,520,518	47,671,353
LIABILITIES AND DEFERRED INFLOWS					
Current liabilities:					
Accounts payable and other liabilities	905,897	10,947	10,134	117,732	1,044,710
Accrued payroll	—	108	—	1,321	1,429
Compensated absences	25,075	463	—	2,540	28,078
Accrued interest payable	157,139	—	60,194	1,720	219,053
Due to primary government	15,583	—	—	1,298	16,881
Unearned revenue	76,176	29,876	28,086	41,805	175,943
Capital leases	4,026	—	—	—	4,026
Bonds, notes payable and other obligations	462,489	85,728	225,895	28,914	803,026
Total current liabilities	1,646,385	127,122	324,309	195,330	2,293,146
Noncurrent liabilities:					
Compensated absences	19,134	—	—	1,492	20,626
Accrued interest payable	211,462	—	—	272	211,734
Due to primary government	—	—	—	9,004	9,004
Unearned revenue	31,809	—	—	31,607	63,416
Capital leases	67,956	—	—	—	67,956
Bonds, notes payable and other obligations	7,245,973	—	3,102,307	599,337	10,947,617
Net pension liability	1,746,607	—	—	37,648	1,784,255
Post-employment benefits obligations	976,553	4,405	—	9,424	990,382
Liability for derivative instruments	487,286	—	6,461	—	493,747
Other noncurrent liabilities	113,446	—	39,342	37,009	189,797
Total noncurrent liabilities	10,900,226	4,405	3,148,110	725,793	14,778,534
Total liabilities	12,546,611	131,527	3,472,419	921,123	17,071,680
Deferred inflows of resources:					
Deferred gain on refundings	208	—	—	—	208
Deferred inflows related to pension	28,574	—	—	1,335	29,909
Total liabilities and deferred inflows	12,575,393	131,527	3,472,419	922,458	17,101,797
NET POSITION					
Net investment in capital assets	27,285,352	480	—	1,109,150	28,394,982
Restricted for:					
Economic development financing	—	—	—	176,343	176,343
Other purposes	748,476	—	1,838,451	772,756	3,359,683
Unrestricted	(2,418,545)	19,147	498,135	539,811	(1,361,452)
Total net position	\$ 25,615,283	\$ 19,627	\$ 2,336,586	\$ 2,598,060	\$ 30,569,556

The notes to the financial statements are an integral part of this statement.

Statement of Revenues, Expenses and Changes in Net Position

Component Units

Fiscal Year Ended June 30, 2016

(Amounts in thousands)

	Massachusetts Department of Transportation	Commonwealth Health Insurance Connector	Massachusetts Clean Water Trust	Nonmajor Component Units	Total
Operating revenues:					
Charges for services	\$ 1,500,584	\$ 526,625	\$ 7,441	\$ 282,625	\$ 2,317,275
Other	—	220	133,905	78,356	212,481
Total operating revenues	1,500,584	526,845	141,346	360,981	2,529,756
Operating expenses:					
Cost of services	3,400,285	504,583	145,570	305,697	4,356,135
Administration costs	908,216	69,277	4,092	127,757	1,109,342
Depreciation	1,124,835	132	—	71,181	1,196,148
Total operating expenses	5,433,336	573,992	149,662	504,635	6,661,625
Operating income/(loss)	(3,932,752)	(47,147)	(8,316)	(143,654)	(4,131,869)
Nonoperating revenues/(expenses):					
Operating grants	2,100,303	32,336	28,927	56,800	2,218,366
Interest income/(loss)	32,988	103	—	(32,332)	759
Other nonoperating revenue/(expense)	(33,583)	1,329	—	28,315	(3,939)
Nonoperating revenues/(expenses), net	2,099,708	33,768	28,927	52,783	2,215,186
Income/(loss) before contributions	(1,833,044)	(13,379)	20,611	(90,871)	(1,916,683)
Capital contributions	2,667,175	—	76,519	13,872	2,757,566
Change in net position/(deficits)	834,131	(13,379)	97,130	(76,999)	840,883
Net position - beginning, as restated	24,781,152	33,006	2,239,456	2,675,059	29,728,673
Net position - ending	\$ 25,615,283	\$ 19,627	\$ 2,336,586	\$ 2,598,060	\$ 30,569,556

The notes to the financial statements are an integral part of this statement.



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1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A. FINANCIAL REPORTING ENTITY – BASIS OF PRESENTATION

The accompanying financial statements of the Commonwealth of Massachusetts (Commonwealth) have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP). The Governmental Accounting Standards Board (GASB) is the recognized standard-setting body for establishing governmental accounting and financial reporting principles. The significant Commonwealth accounting policies are described below.

The Commonwealth is comprised of three branches: the Executive Branch, with the Governor as the chief executive officer; the Legislative Branch, consisting of a Senate of 40 members and a House of Representatives of 160 members; and the Judicial Branch, made up of the Supreme Judicial Court, the Appeals Court, and the Trial Court. In addition, the Legislature has established 57 independent authorities and agencies. Below the level of state government are 351 cities and towns exercising the functions of local governments. The cities and towns of the Commonwealth are also organized into 14 counties, but 7 of those county governments have been abolished in recent years.

For financial reporting purposes, the Commonwealth has included all funds, organizations, agencies, boards, commissions, and institutions. The Commonwealth has also considered all potential component units for which it is financially accountable, as well as other organizations for which the nature and significance of their relationship with the Commonwealth is such that exclusion would cause the Commonwealth's financial statements to be misleading or incomplete. As required by GAAP, these financial statements present the Commonwealth (the primary government) and its component units. The Commonwealth has included 40 entities as component units in the reporting entity because of the significance of their operational and/or financial relationships with the Commonwealth. Additional information related to the component units is found in [Note 13](#) to the basic financial statements.

Blended Component Units – Blended component units are entities that are legally separate from the Commonwealth but are so closely related to the Commonwealth, that they are, in substance, the same as the Commonwealth or entities providing services entirely or almost entirely to the Commonwealth. The net position and results of operations of the following legally separate entities are presented as part of the Commonwealth's operations:

The Massachusetts School Building Authority (MSBA) is charged with administering the Commonwealth's school construction and renovation program. The MSBA's revenues are derived almost entirely from dedicated sales taxes from the Commonwealth, that starting in FY11, increased to 1% of applicable sales in the Commonwealth. The MSBA's bonded debt is secured by these sales tax revenues. Expenditures by the MSBA are made on behalf of the Commonwealth as a successor to a long-standing Commonwealth program of school construction. The MSBA's operations and results thereon are blended with the Commonwealth and as such are reported as a major governmental fund.

The Pension Reserves Investment Trust Fund (PRIT) is the investment portfolio for the pension assets of the Commonwealth and as such, is presented as a blended component unit. PRIT is managed by the Pension Reserves Investment Management (PRIM) Board. Certain portions of PRIT's net position totaling approximately \$11.476 billion relate to holdings on behalf of cities and towns that participate in the Pool and are reported as an external investment trust within the fiduciary fund type.

The Massachusetts Municipal Depository Trust (MMDT) is an investment pool of the Commonwealth and its political subdivisions. The various local governments and other political subdivisions share of net position is approximately \$3.192 billion at June 30, 2016, and is reported as an external investment trust within the fiduciary fund type.

Departments Audited Separately from the Commonwealth but not legally separate from the Commonwealth - the following entities are audited separately from the Commonwealth but are not legally separate from the Commonwealth:

The Massachusetts State Lottery Commission, a division of the Office of the State Treasurer and Receiver-General, operates the Commonwealth's lottery. The net position of the Commission and results thereon are presented as a major

governmental fund.

The Institutions of Higher Education of the Commonwealth are also not legally separate from the Commonwealth and have operations and net position that are presented as part of the Commonwealth's business-type activities. These systems include:

The University of Massachusetts System including the University of Massachusetts Building Authority, and the Worcester City Campus Corporation. The Worcester City Campus Corporation includes a not-for-profit subsidiary, the Worcester Foundation for Biomedical Research, Inc.

The State University and Community College Systems including the 9 state universities and 15 community colleges located throughout the Commonwealth and the Massachusetts State College Building Authority.

Other Discretely Presented Component Units that are Separately Audited – Discrete component units are entities that are legally separate (often called Authorities) but financially accountable to the Commonwealth, or whose relationships with the Commonwealth are such that exclusion would cause the Commonwealth's financial statements to be misleading or incomplete. The component units column of the basic financial statements includes the financial data of the following entities:

Major component units:

The Massachusetts Department of Transportation (MassDOT) incorporates the former Massachusetts Turnpike Authority and has jurisdiction over the Massachusetts Bay Transportation Authority (MBTA) and the Regional Transit Authorities. MassDOT has attributes of a state department as well as an authority. It operates like a state department for purposes of state finance laws and is reported as part of the Commonwealth for compliance with federal and state tax law. In this unique relationship all road and bridge assets of the Commonwealth (including the former Turnpike Authority (MTA)) have been transferred to MassDOT, while the Commonwealth will continue to hold current and future debt for the construction repair, improvement, and replacement of these assets.

The Massachusetts Clean Water Trust provides a combination of federal and Commonwealth funds for water and sewer projects around the Commonwealth as operator of the Commonwealth's State Revolving Fund.

Commonwealth Insurance Connector Authority administers the Commonwealth health insurance programs to facilitate subsidized health insurance for individuals without access to employer-sponsored health insurance as well as offer an affordable commercial health insurance product named Commonwealth Care for small businesses that are eligible for the program.

Related Organizations

The following are "related organizations" under GASB Statement No. 14, *The Financial Reporting Entity*, as amended by Statement No. 39, *Determining Whether Certain Organizations are Component Units – an Amendment of GASB Statement No. 14* and Statement No. 61, *The Financial Reporting Entity: Omnibus, an amendment of GASB Statements No. 14 and No. 34*: Massachusetts Port Authority, Massachusetts Housing Finance Agency, MassVentures, and Massachusetts Educational Finance Authority. The Commonwealth is responsible for appointing a voting majority of the members of each entity's board, but the Commonwealth's authority does not extend beyond the appointments. These entities do not meet the criteria for inclusion as component units of the Commonwealth and therefore are not part of these financial statements.

Availability of Financial Statements

The separately audited financial statements of the Commonwealth's component units and funds may be obtained from the various entities, or by contacting the Office of the Comptroller, Financial Reporting and Analysis, at (617) 973-2660 for component unit contact information.

B. GOVERNMENT-WIDE AND FUND FINANCIAL STATEMENTS

The Statement of Net Position and the Statement of Activities report information on all non-fiduciary activities of the primary government and its component units. Primary government activities are defined as either governmental or business-type activities. Governmental activities generally are financed through taxes, intergovernmental revenues, and other non-exchange revenues. Business-type activities are financed in whole or in part by fees charged to external parties for goods and services.

C. MEASUREMENT FOCUS AND BASIS OF ACCOUNTING*Government-Wide Financial Statements*

The **Statement of Net Position** presents all of the reporting entity's non-fiduciary assets and liabilities, with the difference reported as net position. Net position is reported in three categories:

- **Net investment in capital assets** consists of capital assets, net of accumulated depreciation and reduced by outstanding balances for bonds, notes and other debt that are attributed to the acquisition, construction or improvement of those assets.
- **Restricted net position** results when constraints placed on net position use are either externally imposed by creditors, grantors, contributors, and the like, or imposed by law through enabling legislation.
- **Unrestricted net position** consists of net position which does not meet the definition of the two preceding categories.

Resources from restricted net position are used prior to those from unrestricted net position.

The **Statement of Activities** demonstrates the degree to which the direct expenses of a given function or segment are offset by program revenues. Direct expenses are those that are clearly identifiable within a specific function. Program revenues include charges to customers or applicants who purchase, use or directly benefit from goods, services, or privileges that are restricted to meeting the operational or capital requirements of a particular function. Taxes and other items not meeting the definition of program revenues are instead reported as general revenue and offset or supplant the net operating deficit or surplus from governmental or business-type operations.

Fund Financial Statements

The fund financial statements present a balance sheet and a statement of revenues, expenditures, and changes in fund balances for its major and aggregated non-major funds.

Separate financial statements are provided for governmental funds, proprietary funds, and fiduciary funds. Major individual governmental funds and major individual proprietary funds are reported as separate columns in the fund financial statements pursuant to GASB reporting standards, with non-major funds being combined into a single column. The Commonwealth reports its financial position and results of operations in funds, each of which is considered a separate accounting entity. The operations of each fund are accounted for with a set of self-balancing accounts that comprise its assets, liabilities, fund equity, revenues, and expenditures/expenses. Transactions between funds within a fund type, if any, have not been eliminated.

Governmental Activities – Government-wide financial statements are reported using the economic resources management focus and the full accrual basis of accounting. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of cash flows. Grants and similar items are recognized as revenues as soon as all eligibility requirements have been met.

Governmental Funds – Fund financial statements account for the general governmental activities of the Commonwealth. Governmental fund statements are reported using the current financial resources measurement focus

and the modified accrual basis of accounting. Revenues are recognized as they become susceptible to accrual and are both measurable and available. Revenues are considered to be available when they are collected within the current period or soon enough thereafter to pay liabilities of the current period. Significant revenues susceptible to accrual include income, sales and use, corporation, and other taxes, federal grants, federal reimbursements and other reimbursements for use of materials and services which are recognized in the year the materials are received, the grants are expended, or services are provided. The measurement period for accrual for taxes earned is generally one year for income, corporate and other taxes and within thirty days for sales and use taxes. For federal and other reimbursements, the measurement period for accrual is generally sixty days if the related expenditures being reimbursed occurred prior to year-end. Expenditures are recorded in the period in which the related fund liability is incurred. Principal and interest on general long-term obligations are recorded as fund liabilities when due. Compensated absences, claims and judgments, termination benefits and similar activities are recognized to the extent that they are normally expected to be liquidated with expendable available financial resources. Amounts incurred but not reported for Medicaid are reported to the extent that services are rendered before June 30th.

Business-Type Activities – Government-wide financial statements account for activities for which a fee is charged to external users for goods or services. In these services, debt may be issued backed solely by these fees and charges.

There may be also a legal requirement or a policy decision to recover costs. As such, these funds account for operations similarly to a for-profit business. The Commonwealth's Institutions of Higher Education's operations are reported as systems within the proprietary funds. Proprietary fund types are described in more detail below.

Proprietary and Fiduciary Funds – Fund financial statements are presented on the same basis of accounting as the business-type activities in the government-wide financial statements. Post-employment benefits and refunds are recognized when due and payable.

The Commonwealth reports the following fund types:

Governmental Fund Types:

General Fund, a governmental fund, is the primary operating fund of the Commonwealth. It is used to account for all governmental transactions except those required to be accounted for in another fund.

Special Revenue Funds account for specific revenue sources that have been aggregated according to Commonwealth general laws to support specific governmental activities.

Debt Service Fund accounts for the accumulation of resources for and the payment of debt.

Capital Projects Funds account for the acquisition or construction of major Commonwealth capital facilities financed primarily from bonds and federal reimbursements.

Within the governmental fund types, the Commonwealth has established the following major funds, in addition to the General Fund:

Lottery Funds are governmental funds and account for the operations of the State and Arts Lotteries, which primarily reimburse the General Fund for local aid to cities and towns.

The Massachusetts School Building Authority is presented as a governmental fund, reflecting the activity of the blended component unit, the Massachusetts School Building Authority, accounting for grants to cities, towns and regional school districts for school construction and renovation projects.

Proprietary Fund Types:

Business-Type Activities account for programs financed in whole or in part by fees charged to external parties for goods and services.

The proprietary funds include the following:

Unemployment Compensation Fund reports the taxes collected from employers and held by the United States Treasury in the Federal Unemployment Trust Fund, from which funds are drawn for the payment of benefits to the unemployed.

College and University Information, is presented here, aggregated by the University's activity, the State Universities' activity and the Community Colleges' activity.

Fiduciary Fund Types:

Post-Employment Benefit Trust Funds report resources that are required to be held in trust for the members and beneficiaries of the Commonwealth's post-employment benefit plans. These funds recognize employer and participant contributions in the period when contributions are due, and the Commonwealth has made a formal commitment to provide the contributions via an appropriation. Further information on the significant accounting policies for post-employment benefit trust funds may be found in [Note 9](#) to the basic financial statements on pages 106–119.

External Investment Trust Funds account for the portion of pooled cash and pension assets held under the custodianship of the Commonwealth for the benefit of cities, towns and other political subdivisions of the Commonwealth.

Private Purpose Funds account for various gifts and bequests held by the Commonwealth of which only the income is expendable for purposes specified by the donor. The majority of the individual accounts are for perpetual cemetery care endowments on behalf of deceased individuals.

Agency Funds account for assets the Commonwealth holds on behalf of others. Agency Funds are custodial in nature and do not involve measurement of operations.

Fund Balances:

Governmental fund balances are considered nonspendable, restricted, committed, assigned, and unassigned, based on the relative strength of spending constraints.

Nonspendable fund balances are those that cannot be spent because they are either: (a) not in spendable form; or (b) legally or contractually required to be maintained intact, such as balances in the form of inventories, permanent funds, and notes receivable. For the Commonwealth, the only nonspendable balances are notes receivable in the non-major governmental funds.

Restricted fund balances are those where constraints on their use are: a) externally imposed by creditors (such as through debt covenants), grantors, contributors or laws or regulations of other governments; or b) imposed by constitutional provisions or enabling legislation such that there is a legally enforceable requirement that those resources be used only for the specific purposes stipulated. Legal enforceability means that a government can be compelled by an external party—such as citizens, public interest groups, or the judiciary—to use resources created by enabling legislation only for the stipulated purposes.

Committed balances are those that can be used only for specific purposes pursuant to constraints imposed by formal action of the government's highest level of decision-making authority, which in the case of the Commonwealth is the Legislature and Governor. Committed amounts cannot be used for other than the specified purposes unless the Governor and Legislature remove or change the specified use through legislation. The authorization specifying the purposes for which amounts can be used must have the consent of both the legislative and executive branches of the government prior to the end of the reporting period.

Assigned balances are amounts that are constrained by the government's intent to be used for specific purposes, but are neither restricted nor committed. Intent should be expressed by: (a) the governing body itself; or (b) a body (a budget or finance committee, for example) or official to which the governing body has delegated the authority to assign amounts to be used for specific purposes. The Massachusetts Legislature has the authority to assign or modify previously assigned fund balance. In distinction to restricted and committed balances, the authority for making an assignment is not required to be the government's highest level of decision-making authority, i.e., the Legislature and Governor, and

the action to assign fund balance can occur after the end of the year. Furthermore, the nature of the actions necessary to remove or modify an assignment is not as prescriptive as it is with committed fund balances—constraints imposed on the use of assigned amounts are more easily removed or modified than those imposed on amounts that are classified as committed. Per GASB 54, assigned balances include those funds remaining at the end of the fiscal year that are reappropriated for the following fiscal year. Assigned balances also include administratively established accounts whose purpose is defined by Secretary of Administration and Finance and other cabinet secretaries.

Unassigned fund balance is the residual classification for the General Fund. This classification represents fund balance that has not been assigned to other funds and that has not been restricted, committed, or assigned to specific purposes in the General Fund. The General Fund is the only fund that reports a positive unassigned fund balance amount. In addition, in accordance with GASB No. 54, negative balances in other governmental funds are classified as unassigned.

While the Commonwealth has not announced a formal policy governing the priority of spending fund balances, in conformance with GASB 54 requirements, when an expenditure is incurred for purposes for which both restricted and unrestricted resources are available, restricted resources are spent first, followed by committed resources, assigned resources, and unassigned resources.

Detail of FY16 ending fund balances is shown below.

Governmental Fund Balances at June 30, 2016

(amounts in thousands)

	Nonexpendable Purposes	Restricted Purposes	Committed Purposes	Assigned Purposes	Unassigned Purposes	Totals
General Fund						
General Government	\$ —	\$ —	\$ —	\$ —	\$ 1,173,549	\$ 1,173,549
Stabilization Fund	—	—	1,291,514	—	—	1,291,514
FY16 Appropriations Reappropriated in FY17	—	—	—	109,328	—	109,328
Subtotals, General Fund	—	—	1,291,514	109,328	1,173,549	2,574,391
Lottery Funds						
Lottery Operations	—	—	2,201	—	—	2,201
Subtotals, Lottery Funds	—	—	2,201	—	—	2,201
Massachusetts School Building Authority (MSBA)						
Debt Service	—	924,329	—	—	—	924,329
Grants to Cities, Towns and Local School Districts	—	—	—	589,970	—	589,970
Subtotals, MSBA	—	924,329	—	589,970	—	1,514,299
Other Governmental Funds						
Restricted by Federal Grantors	—	23,116	—	—	—	23,116
Child Support -- Restricted by Federal Grantors	—	21,498	—	—	—	21,498
Environmental	—	—	17,671	—	—	17,671
Public Safety -- Enhanced 911 Services	—	—	123,354	—	—	123,354
Public Safety -- Other	—	—	2,139	—	—	2,139
Universal Health Care - Distressed Hospital Relief	—	—	109,465	—	—	109,465
Universal Health Care - Non-Institutional Long-Term Care	—	57,718	—	—	—	57,718
Universal Health Care - Other	—	—	38,667	—	—	38,667
Other Health Care	—	—	24,068	—	—	24,068
Workforce Training	—	—	43,236	—	—	43,236
Convention Centers	—	—	105,179	—	—	105,179
General Government Capital Projects Fund	—	—	—	—	(212,888)	(212,888)
Highway Capital Projects Fund	—	—	—	—	(275,432)	(275,432)
General Government Debt Service	—	20,647	—	—	—	20,647
Transportation (GANS*/Commonwealth Transportation Fund)	—	103,298	57,187	—	—	160,485
Gaming	—	—	5,473	—	—	5,473
Expendable Trusts	914	219,144	278,969	146,269	—	645,296
Other	6,996	11	322,524	—	(56,809)	272,722
Subtotals, Other Governmental Funds	7,910	445,432	1,127,932	146,269	(545,129)	1,182,414
Totals	\$ 7,910	\$ 1,369,761	\$ 2,421,647	\$ 845,567	\$ 628,420	\$ 5,273,305

*Federal Grant Anticipation Notes

The Commonwealth does not have a formally adopted minimum fund balance policy. However, most governmental funds cannot end a fiscal year in deficit. Those funds that are authorized to end a fiscal year in deficit are discussed in [Note 8](#) to the basic financial statements, "Individual Fund Deficits" on page 106.

Stabilization Fund Arrangements:

In accordance with Section 2H of Chapter 29 of the Massachusetts General Laws, the Commonwealth maintains a Stabilization (“Rainy Day”) Fund. Per Chapter 29, balances in the Stabilization Fund can be expended only when non-routine budget shortfalls occur and upon appropriation by the Legislature and approval by the Governor. Chapter 29 requires that after calculating the Commonwealth’s “consolidated net surplus” (the sum of the “undesignated” balances in certain specific state budgeted funds, equal to balances that are neither restricted nor reappropriated for the following fiscal year) any remaining surplus be transferred to the Stabilization Fund. In addition, withholding taxes on certain Lottery transfers are required to be transferred to the Stabilization Fund. Starting in FY10, statute requires the Comptroller, after certification by the Commissioner of Revenue, to transfer any capital gains tax revenues in excess of \$1 billion (adjusted annually for economic growth) during a fiscal year to the Stabilization Fund. Starting in FY12, statute requires the Comptroller, after certification by the Commissioner of Revenue and the Attorney General, to transfer to the Stabilization Fund all revenue from individual settlements and judgments greater than \$10 million each that exceeds the five year rolling annual average of such settlements and judgments. For FY16, the capital gains statute was suspended by budgetary legislation enacted during the fiscal year and because settlements and judgments revenue did not reach the five year average threshold, all such revenue was retained in the General Fund.

Historically, balances in the Stabilization Fund have been used almost exclusively during recessionary periods to offset budget shortfalls after other budgetary measures have been taken. Per Chapter 29, the Commonwealth is required to maintain a balanced budget, and if a revenue shortfall is projected, the Secretary of Administration and Finance is required to reduce state agencies’ spending authorizations in an amount equal to any projected shortfall.

The Stabilization Fund ended FY16 with a balance of \$1.292 billion. For the fiscal year ending June 30, 2016, the Stabilization Fund’s balance increased by \$39 million as a result of inflows, including approximately \$27 million, representing 75% of the growth in abandoned property revenues from FY15 to FY16, \$11.0 million from investment income, and approximately \$1 million in statutorily mandated deposits of withholding taxes on certain Lottery proceeds. There were no withdrawals during the fiscal year. In accordance with GASB 54 requirements, balances in the Stabilization Fund are classified as committed.

Fiscal Year-End

All funds and component units are reported using fiscal years, which end on June 30.

Program Revenue

Program revenue is defined by the Commonwealth to be the revenue from fees and assessments collected by departments that are directly applicable to that department’s operations.

Operating and non-operating revenues and expenses

Revenues and expenses of business-type activities and proprietary funds are classified as operating or non-operating and are subclassified by object. Operating revenues and expenses generally result from providing services and producing and delivering goods. All other revenues and expenses are reported as non-operating.

D. CASH, CASH EQUIVALENTS, SHORT-TERM INVESTMENTS AND INVESTMENTS

The Commonwealth follows the practice of pooling cash and cash equivalents. Cash equivalents consist of short-term investments with an original maturity of three months or less and are stated at cost. Interest earned on pooled cash is allocated to the General Fund and, when so directed by law, to certain other Governmental Funds.

The Office of the Treasurer and Receiver-General (Treasury) manages the Commonwealth’s short-term external mixed investment pool, the Massachusetts Municipal Depository Trust (MMDT). MMDT is comprised of two portfolios: a Cash Portfolio and a Short Term Bond Portfolio. The Cash Portfolio is a money-market-like investment pool; its investments are carried at amortized cost, which approximates fair value. As of June 30, 2016, the MMDT’s entire cash fund is included as cash equivalents in the accompanying financial statements. The Short Term Bond Portfolio

investments are carried at fair value. As of June 30, 2016, the MMDT's entire bond fund is included as short-term investments in the accompanying financial statements.

Investors in MMDT are not allowed to overdraw their shares. For a complete copy of MMDT's separately issued financial statements, please contact the Office of the State Treasurer's Cash Management Department, at (617) 367-9333 or download the statements from the Cash Management section of the Office of the State Treasurer's website at www.mass.gov/treasury. General Law Chapter 29, Section 38 enumerates the Commonwealth's investment policy for non-pension assets.

The post-employment benefit trust funds invest in the Pension Reserves Investment Trust (PRIT) Fund, an external investment pool managed by the Pension Reserves Investment Management (PRIM) Board. The State Employees', Teachers' Public Employee Retirement Systems (PERS) and the State Retiree's Benefit Trust (SRBT) are required to invest in the PRIT Fund and comprise approximately 39.0%, 40.8% and 1.3% respectively, of the net position of the PRIT Fund. For a complete copy of PRIT's separately issued financial statements, contact the PRIM Board at 84 State Street, Boston, MA 02109.

The Commonwealth's investments, including those of the PRIT Fund, are comprised of investments in domestic and international equities (marketable securities) and fixed income securities, as well as the following alternative investments: real estate; venture capital and private equity; limited partnerships; hedge fund of funds; and other alternative investments. Marketable securities are reported at fair value based upon quoted market prices. Investments in fixed income securities, including U.S. government agency obligations, are reported at fair value using independent pricing services. In determining the price, the services may reflect such factors as market prices, yields, maturities, and rating, supplemented by deal quotations. Alternative investments are reported at estimated fair values as determined by management with input from the PRIM Board and its investment managers. Alternative investment securities comprise approximately 36.6% of the total investments of the PRIT Fund.

The investments of the PRIT are held separately from those of other Commonwealth funds, with the exception of their investments in the MMDT. PRIT funds invested in the MMDT are accounted for separately. Security transactions are recorded on the trade date the securities are purchased or sold. The cost of a security is the purchase price or, in the case of assets transferred to PRIT by a Participating or Purchasing System, the fair value of the securities on the transfer date.

Annuity contracts represent guaranteed investment contracts and are carried at amortized cost.

E. RECEIVABLES

In general, tax revenue is recognized on the government-wide statements when assessed or levied and on the governmental financial statements to the extent that it is both measurable and available, based upon collection experience. If revenue is not received by year-end, receivables are deferred. Receivables are stated net of estimated allowances for uncollectible accounts.

Reimbursements due to the Commonwealth for its expenditures on federally-funded-reimbursement and grant programs are reported as "Federal grants and reimbursements" or "Due from federal government" in the statement of net position.

"Other Receivables" represent amounts due to Commonwealth including Lottery revenues and Higher Education receivables from students, amounts due to the University of Massachusetts from related organizations and other items.

Included in receivables for FY16 are amounts due to the Commonwealth under provisions of the Master Settlement Agreement among five tobacco companies and 46 states, including the Commonwealth. Pursuant to provisions of GASB Technical Bulletin No. 2004-1 "Tobacco Settlement Recognition and Financial Reporting Entity Issues", a receivable has been declared for approximately \$126 million, representing 50% of the amounts expected to be received during FY17 and is included as part of general fund activity.

F. DUE FROM CITIES AND TOWNS

“Due from Cities and Towns” represents reimbursements due to the Commonwealth for its expenditures on certain programs for the benefit of cities and towns.

The MSBA has entered into various loan agreements with municipalities at a 2.0% interest rate with principal to be paid in equal installments for varying terms. Currently, the longest repayment schedule has a final payment in FY43. This program is designed to assist school districts with unanticipated inflationary construction costs over the district’s original amount budgeted for a project. The loans outstanding as of June 30, 2016 were \$99.3 million, of which \$6.4 million is due in FY17. During FY16, the MSBA collected \$6.4 million of scheduled principal payments.

G. CAPITAL ASSETS

Capital assets, which include property, plant, equipment and infrastructure (e.g. roads, bridges, ramps and other similar items), are reported in the applicable governmental or business-type activity columns of the government-wide financial statements.

Methods used to value capital assets

Capital assets are recorded at historical cost or estimated historical cost if purchased or constructed. Donated capital assets are recorded at acquisition value at the date of acquisition.

Capitalization policies

All land, non-depreciable land improvements and donated historical treasures or works of art are capitalized. Single pieces of equipment, vehicles, computer equipment and software that equal or exceed \$50,000 (\$1,000 for the University of Massachusetts) are capitalized. Buildings and infrastructure projects with a cost that equals or exceeds \$100,000 are capitalized. The costs of normal maintenance and repairs that do not add to the value of assets or materially extend asset lives are not capitalized.

Capital assets of the Component Units are capitalized upon purchase and depreciated on a straight-line basis over the estimated useful lives of the assets.

Depreciation and useful lives

Applicable capital assets are depreciated using the straight-line method. Unless unallocable, depreciation expense is charged to the function of the capital asset being depreciated. Estimated useful lives are as follows:

<i>Type of Asset</i>	Estimated Useful Life (in years)
Buildings	40
Infrastructure - roads, bridges and tunnels	40
Infrastructure - beaches, boardwalks, bike ways, etc	20
Infrastructure - dams, water and sewer systems.....	50
Furniture	10
Library collections that are not historical treasures	15
Equipment, office equipment and life safety equipment.....	10
Computer hardware and software	3 to 7
Vehicles	5

Construction in process

Construction in process includes all associated cumulative costs of a constructed capital asset. Construction in process is relieved at the point at which an asset is placed in service for its intended use.

H. INTERFUND / INTRAFUND TRANSACTIONS

As a general rule, the effect of interfund activity has been eliminated in the government-wide statements. Exceptions to this rule are: 1) activities between funds reported as governmental activities and funds reported as business-type activities and 2) activities between funds that are reported in different functional categories in either the governmental or business-type activities column. Elimination of these activities would distort the direct costs and program revenues for the functions concerned. Interfund receivables and payables have been eliminated from the government-wide Statement of Net Position, except for the residual amounts due between governmental and business-type activities.

I. STATEWIDE COST ALLOCATION PLAN – FRINGE BENEFIT COST RECOVERY

The Commonwealth has elected not to present its cost allocation and recovery separately on the Statement of Activities. Certain costs of nine “central service” agencies of the Commonwealth are recovered from the remaining agencies in a federally approved statewide cost allocation plan. These costs that are allocated are based upon benefits received by the user agency that benefit from these services. The Commonwealth also appropriates and pays the fringe benefit costs of its employees and retirees, as well as MassDOT employees and retirees, through the General Fund. These fringe benefits include the costs of employees’ group health insurance, pensions, unemployment compensation, and other costs necessary to support the workforce. As directed by Massachusetts General Laws, these costs are assessed to other funds based on payroll costs, net of credits for direct payments. Since fringe benefit costs are not separately appropriated or otherwise provided for in these funds, the required assessment creates an unfavorable budget variance in the budgeted funds. The employees’ group health insurance and workers’ compensation activity is accounted for in the governmental funds.

J. SCHOOL CONSTRUCTION GRANTS, CONTRACT ASSISTANCE AND OTHER PAYABLES

Under the former school building assistance program (prior to the creation of the MSBA) the Commonwealth reimbursed 50% to 90% of approved eligible construction and borrowing costs for school construction and renovation to municipalities and regional school districts for 728 previously approved projects noted by MSBA as Prior Grant projects. The MSBA has assumed responsibility for these projects under its enabling statute.

The MSBA records a liability for its share of total eligible project costs differently depending on the type of project. However, for all projects, the MSBA recognizes a liability for its estimated share of total eligible project costs when the applicable eligibility requirements have been met.

Prior Grants - All of the 728 Prior Grant projects had been receiving an annual payment under the former program. The liability for these projects will be reduced over time through annual payments, and savings from debt refundings by the local communities in which the MSBA shares in the savings based on the reimbursement rate of the project. These projects operate similar to Prior Grant projects.

Waiting List - The MSBA funds Waiting List projects using two different methods, lump sum and progress payments. Each funding method has different eligibility requirements.

Waiting List projects that are under the lump sum method were recognized as a liability once construction started. The liability for these projects will be reduced over time through annual payments and savings from debt refundings by the local communities in which the MSBA shares in the savings based on the reimbursement rate of the project. These projects operate similar to Prior Grant projects.

Under the progress payment method, the MSBA's shares of costs incurred are generally recognized as a liability once a grantee requests reimbursement from the MSBA. Of the \$110.4 million liability associated with Waiting List projects, the liability related to the progress payment method is approximately \$4 million.

Waiting List projects that are not currently recognized as a liability are considered commitments of the MSBA. As of June 30, 2016, the amount of commitments outstanding for the Waiting List project is \$4.8 million, and is anticipated to be funded under the progress payment method.

New Program - The MSBA funds New Program projects on a progress payment basis. Under this process, communities may submit reimbursement requests no more frequently than once per month. Upon review, audit, and approval, the MSBA processes payment for its share of eligible costs incurred. The MSBA's share of costs incurred for New Program projects are recognized as a liability once a grantee's request for reimbursement is reviewed, audited, and approved by the MSBA. The MSBA has recorded a liability of \$29.1 million in the special revenue fund for reimbursements received, reviewed, and approved for payment by June 30, 2016. Additionally, a long term liability of \$127 million was recorded for the reimbursements not reviewed or approved for payment prior to June 30, 2016, as well as final project hold back payments subject to final audit and Board approval after year end. New Program projects that are not currently recognized as a liability are considered commitments of the MSBA. As of June 30, 2016, the amount of commitments outstanding for the New Program projects is \$1.0 billion, and will be funded under the progress payment method.

For all projects, regardless of the funding mechanism, costs incurred by the grantees are subject to audit by the MSBA. Completion of these audits will allow the MSBA to determine the final approved cost of these projects, and the MSBA will adjust the payments it makes for these projects, as necessary, in accordance with the results of those audits.

As of June 30, 2016, MSBA had an outstanding liability of \$156.2 million, and \$1.0 billion of commitments outstanding, for the New Program projects. The Commonwealth dedicates a 1% statewide sales tax (drawn from the existing statewide 6.25% sales tax), excluding sales tax revenues on meals and from certain additional statutorily exempted revenues from sales, to the School Modernization and Reconstruction Trust Fund (the "SMART Fund"), in support of these grant programs and for all other operations of the MSBA, including debt service.

The Commonwealth recognizes contract assistance on an annual basis due to the Massachusetts Clean Water Trust (the Trust). This assistance is applied as a subsidy to repayments from the Trust loan borrowers. The expectation is that the assistance will be available for the life of the Trust financing agreement. The assistance is drawn from the Commonwealth on a 20-year repayment stream, even if the loan is for a longer period. If there is a differential between the assistance received and the amounts needed for loan subsidies, that amount is invested by the Trust in an annuitized fashion to be used beyond year 20. If assistance is not provided by the Commonwealth, the Trust borrower is obligated for any shortfall.

Accounts payable includes amounts due to vendors of the Commonwealth for goods and services delivered before June 30th but paid for after year-end, the largest of which is Medicaid for \$1.652 billion.

K. COMPENSATED ABSENCES

Compensated absences are recorded as a long-term liability in the Statement of Net Position. For the governmental fund statements, accumulated vacation and sick leave are reported as expenditures and fund liabilities when incurred upon retirement, termination or death. Sick and vacation payments to terminated employees as of June 30, 2016 but paid after the fiscal year ends are also reported in the funds.

Employees are granted vacation and sick leave in varying amounts based on collective bargaining agreements and state laws. Upon retirement, termination or death, certain employees are compensated for unused vacation and sick leave (subject to certain limitations) at their current rate of pay.

Compensated absences in the governmental funds are liquidated from the same sources that fund the personnel expenses of the employees who are compensated for unused vacation and sick leave pay. In most cases, this is the General Fund, but also includes non-General Fund sources to the extent that personnel expenses are charged to those funding sources.

In the business-type activity and the discretely presented component units, employees' accumulated vacation and sick leave are recorded as an expense and liability as the benefits accrue.

L. DEDICATED REVENUES AND PLEDGES

The Commonwealth has a number of pledges of revenue streams for its own bonds and various other bond issues of other authorities. Commonwealth debt supported by dedicated revenue streams include special obligation bonds for road and bridge construction secured by motor fuels taxes and federal grant anticipation notes (GANS) secured by federal grants for highway construction. Detailed information on pledges for the Commonwealth's own debt is included in sections [B](#) and [C](#) of [Note 7](#), on page 96-97.

A portion of the Commonwealth's receipts from the sales tax (other than the tax on meals) is dedicated through non-budgeted special revenue funds to the Massachusetts Bay Transportation Authority (MBTA) and the Massachusetts School Building Authority (MSBA). The amount dedicated to the MBTA is the amount raised by a 1% sales tax (not including meals), subject to an inflation-adjusted floor. A comparable amount, though without the floor, is dedicated to the MSBA beginning in fiscal 2010.

Legislation approved by the Governor on October 31, 2014 increased the amount statutorily required to be credited to the MBTA by \$160 million annually, starting in fiscal 2015. The \$160 million increase in the dedicated sales tax revenue amount and the amount included in the inflation-adjusted floor was intended to replace the \$160 million annual state appropriation the MBTA received from fiscal 2010 through fiscal 2014. In FY16, total dedicated sales tax revenue that was directed to the MBTA was approximately \$988 million. Dedicated revenues to the MBTA increase by the lesser of the annual increase in the Boston consumer price index or prior calendar year annual sales taxes, with a floor of 0% and a ceiling of 3.0%.

The MSBA also receives a pledge of sales tax that, starting in FY11, increased to 1.0% of applicable sales in the Commonwealth but with no annual floor or ceiling. In FY16, approximately \$799 million of the dedicated sales tax revenue stream was directed to the MSBA.

The Commonwealth has also pledged sales tax revenue and rooms tax surcharges from areas contiguous to convention centers and the Worcester DCU Arena and Convention Center to support such centers' operations. As of June 30, 2016, taxes within the Convention Center districts support approximately \$598 million of outstanding principal and approximately \$355 million of interest on debts related to these Convention Centers. Taxes collected in FY16 were approximately \$136 million, while debt service on the bonds was approximately \$55 million.

Under additional transportation finance reform effective July 1, 2013, motor vehicle sales tax collections were shifted from the General Fund to the Commonwealth Transportation Fund (CTF), while also eliminating a 0.385% pledge of regular and meals sales tax to the CTF. During FY16, approximately \$536 million in sales tax revenue was transferred to the CTF. From the Commonwealth Transportation Fund, \$171 million was dedicated to funding the operations of the MBTA while an additional \$82 million was dedicated to funding the operations of the regional transit authorities. These amounts are transferred through the CTF.

M. LOTTERY REVENUE AND PRIZES

Ticket revenues and prizes awarded by the Massachusetts Lottery Commission are recognized as drawings are held. For certain prizes payable in installments, the Commonwealth purchases annuities and principal-only and interest-only treasury strips in the Commonwealth's name, which are recorded as annuity contracts and prizes payable in the agency fund and on the Statement of Net Position. Though the annuities are in the Commonwealth's name in the case of a default, they are solely for the benefit of the prizewinner. The Commonwealth retains the risk related to such annuities.

N. RISK FINANCING

The Commonwealth self-insures for employees' workers' compensation, casualty, theft, tort claims and other losses. Such losses, including estimates of amounts incurred but not reported, are included as accrued liabilities in the accompanying financial statements when the loss is incurred. For employees' workers' compensation, the Commonwealth assumes the full risk of claims filed under a program managed by the Human Resources Division. For personal injury or property damages, Massachusetts General Laws limit the risk assumed by the Commonwealth to \$100,000 per occurrence, in most circumstances. The Group Insurance Commission administers health care and other insurance for the Commonwealth's employees and retirees.

O. NET POSITION

The Commonwealth reports net position as restricted where legally segregated for a specific future use by enabling legislation. Otherwise, these balances are considered unrestricted.

Net position has been restricted as follows:

"Restricted for unemployment benefits" – identifies amounts solely for the payment of unemployment compensation under federal labor laws.

"Restricted for retirement of indebtedness" – identifies amounts held by fiscal agents to fund future debt service obligations pertaining to Special Obligation Revenue Bonds authorized under Section 2O of Chapter 29 of the Massachusetts General Laws and Chapter 33, Acts of 1991. It also includes amounts held for Grant Anticipation Notes authorized by Chapter 11 of the Acts of 1997 and Chapter 121 of the Acts of 1998.

"Restricted for other purposes" – identifies amounts held for various externally imposed restrictions either by creditors, grantors or laws and regulations of other governments.

"Restricted for nonexpendable purposes" – identifies amounts held as permanent investments for a specific purpose.

As of June 30, 2016, the government-wide statement of net position reports the following as restricted net position (amounts in thousands):

	Governmental Activities	Business Type Activities	Government Wide Total
Restricted for:			
Unemployment benefits	\$ —	\$ 1,478,053	\$ 1,478,053
Retirement of indebtedness	1,216,986	—	1,216,986
Restricted for other purposes including:			
Higher education endowment funds	—	18,886	18,886
Higher education academic support and programs	—	2,080	2,080
Higher education scholarships and fellowships:			
Nonexpendable	—	3,327	3,327
Expendable	—	7,059	7,059
Other nonexpendable purposes	—	3,366	3,366
Capital projects - expendable trusts	—	2,319	2,319
Other purposes	321,676	230,750	552,426
Total restricted net position	<u>\$ 1,538,662</u>	<u>\$ 1,745,840</u>	<u>\$ 3,284,502</u>

The net position of the Pension Trust Funds and the Pension Reserves Investment Trust portion of the External Investment Trust Funds are restricted for post-employment benefits. These restrictions identify resources held in trust for the members and beneficiaries of the Commonwealth's post-employment plans. The Pension Reserves Investment Trust portion of the External Investment Trust Funds also includes pooled cash and pension assets held under the custodianship

of the Commonwealth for the benefits of cities, towns and other political subdivisions of the Commonwealth.

P. SERVICE CONCESSION AGREEMENTS

The higher education institutions of the Commonwealth (State Universities and Colleges) enter in to services concession agreements for campus dining facilities and bookstores. In exchange for these agreements the vendors provide contributions to the institutions to improve the facilities as well as revenue sharing arrangements. All improvements and equipment purchased with the payments remain the property of institutions. The contracts range from five to ten years in duration. These agreements generate deferred inflows of revenues, and liability for the unamortized portion of assets transferred. Per terms of the agreements, either party can terminate the agreement at any time, without cause, by providing a written notice. In the event of termination, the unamortized portion is to be returned. Following is a summary of amounts of the arrangements as of June 30, 2016 (amounts in thousands):

State Universities	\$	15,237
Community Colleges		617
Total.....	\$	<u>15,854</u>

Q. RECLASSIFICATIONS / RESTATEMENTS

Certain amounts in the separately issued component units' financial statements have been reclassified to conform to the accounting classifications used by the Commonwealth.

MassDOT, a discretely presented component unit, restated their beginning net position from \$24.799 billion, as previously reported, to \$24.781 billion due to a change in accounting treatment by certain Regional Transit Authorities, which are discretely presented component units of MassDOT.

R. ESTIMATES

The preparation of the Comprehensive Annual Financial Report requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures at the date of the financial report.

Estimates also affect the reported amounts of revenues and expenditures during the reporting period. Actual results could differ from those estimates.

S. PENSIONS

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the State Employees' Retirement System (SERS) and the Massachusetts Teachers' Retirement System (MTRS) and additions to/deductions from the SERS and the MTRS fiduciary net position have been determined on the same basis as they are reported by SERS and MTRS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

T. SIGNIFICANT NEW ACCOUNTING PRONOUNCEMENTS

The Commonwealth has implemented the following GASB Statements during FY16:

GASB Statement 72, *Fair Value Measurement and Application*. This Statement addresses accounting and financial reporting issues related to fair value measurements. It provides guidance for determining a fair value measurement and requires disclosures to be made about fair value measurements, the level of fair value hierarchy, and valuation techniques. There was no impact to beginning net position as a result of implementing this Statement. See [Note 2C](#) for further information on fair value measurement reporting.

2. DEPOSITS, SHORT-TERM INVESTMENTS AND INVESTMENTS**Primary Government**

The Commonwealth's cash and cash equivalents and restricted cash is comprised of the following (amounts in thousands):

	Governmental Activities	Business-Type Activities	Government Wide Total	Fiduciary Funds
Cash.....	\$ 69,654	\$ 512,503	\$ 582,157 ⁽¹⁾	\$ 346,177
MMDT - cash fund.....	3,517,227	576,347	4,093,574 ⁽¹⁾	3,652,134
Restricted cash with fiscal agent.....	382,839	—	382,839	—
Total.....	<u>\$ 3,969,720</u>	<u>\$ 1,088,850</u>	<u>\$ 5,058,570</u>	<u>\$ 3,998,311</u>

(1) of which \$523,422 is presented as restricted cash in the accompanying financial statements.

Lottery Annuity Contracts

The Massachusetts State Lottery Commission, a division of the Office of the State Treasurer and Receiver-General, purchases annuity contracts from insurance companies and United States treasury strips to fund the Commonwealth's liability for future installment prize obligations. These annuities and treasury strips represent obligations of the insurance companies and the custodial banks, respectively, to provide a fixed series of payments over a specified period. Only the annuity investments are subject to credit risk. For the annuity contracts, risk is controlled by purchasing these investments only from insurance companies with the top two ratings issued by a national recognized ratings organization. However, due to the nature of these annuity contracts, the credit quality of the insurance company issuer is subject to change. As of June 30, 2016, the amortized cost of annuities was approximately \$112 million. At June 30, 2016, the U.S Treasury Strips have a fair value of approximately \$1.083 billion. Approximately 89.7% of these amounts are held in United States Treasury strips at a custodial bank. No insurance company has an amount of annuities over 5.1% of the overall portfolio.

MSBA Deposits and Investments

The MSBA is authorized to invest in obligations of the US Treasury, its agencies and instrumentalities, bonds or notes of public agencies or municipalities, bank time deposits, guaranteed investment contracts, money market accounts and repurchase agreements. These investments are recorded at fair value. The MSBA has an investment policy that establishes the minimum credit quality for certain instruments, outlines investment procedures and updates for periodic reporting. The MSBA investment policy does not specifically limit the amount the MSBA may invest in any one issuer.

As of June 30, 2016, the MSBA held the following deposits and investments which are a component of Governmental Activities above (amounts in thousands):

Cash and cash equivalents.....	\$ 283,977
Restricted cash with fiscal agent.....	169,509
Restricted investments	924,329
Total.....	<u>\$ 1,377,815</u>

Custodial Credit Risk – Pooled Cash

Custodial credit risk is the risk that in the event of a bank failure, deposits and investments may not be returned to the Commonwealth. Cash balances represent amounts held in bank depository accounts that may be subject to custodial credit risk.

The Commonwealth requires all bank deposits in excess of insurance coverage by the Federal Deposit Insurance Corporation (FDIC) to be collateralized with a perfected pledge of eligible collateral or a letter of credit. For programs created by the Treasury, such as the Small Business Banking Program, eligible collateral must be pledged in an amount equal to 102% of the amount of the deposits that exceed FDIC insurance. Sufficient collateral to cover total Commonwealth deposits in excess of the FDIC insured amount must be pledged and held in safekeeping by a custodian that is approved by and under the control of the Treasurer and Receiver General.

Membership by a financial institution in the Depositors Insurance Fund (DIF) or the Share Insurance Fund (SIF) will be accepted by the Treasurer and Receiver General's Office as alternative security, provided that the financial institution submits proof of membership in the DIF or the SIF. Membership in the DIF is limited to Massachusetts chartered savings banks while membership in the SIF is limited to Massachusetts cooperative banks.

Custodial Credit Risk – Higher Education

The Institutions of Higher Education have investment policies that may vary by institution for custodial credit risk. Each institution carries deposits that are fully insured by the FDIC, as well as uninsured deposits. As of June 30, 2016, the bank balances of uninsured deposits totaled approximately \$374 million.

Custodial Credit Risk – MSBA

The MSBA does not have a formal investment policy for custodial credit risk. The MSBA carries deposits that are fully insured by the Federal Deposit Insurance Corporation (FDIC) insurance, as well as deposits that are fully collateralized. As of June 30, 2016, all MSBA bank balances were fully protected against loss.

Interest Rate Risk – MMDT

Interest rate risk is the extent that changes in interest rates of debt investments will adversely affect the fair value of an investment. These investments include certain short-term cash equivalents, various long-term items and restricted assets by maturity in years. The Treasury cash portfolio minimizes the risk of the market value of securities falling due to changes in interest rates by maintaining a dollar-weighted average portfolio maturity of 60 days or less. The Treasury cash portfolio's assets are managed to maintain a dollar-weighted average life to maturity of 120 days or less.

The MMDT Cash Portfolio's dollar-weighted average maturity fluctuated from 50 days on July 1, 2015 to 51 days on June 30, 2016.

Investments in the MMDT Short Term Bond Portfolio are made in investment-grade securities as defined by national statistical rating agencies. The Commonwealth assesses risk for the Short Term Bond Portfolio by using duration. Duration is the weighted maturity of the security's cash flows, where the present values of the cash flows serve as weights.

For the MMDT Short Term Bond Portfolio, the duration fluctuated from 2.4 to 2.7 years. At June 30, 2016, investments in the MMDT Short Term Bond Portfolio had a total net position of \$667 million with investment maturities ranging from less than one year to more than ten years. At June 30, 2016, the Short Term Bond Portfolio's effective maturity schedule was as follows:

Securities with an Effective Maturity of	Percentage of Total Net Position
Less than one year.....	19.3%
One to five years	74.1%
Six to ten years.....	5.9%
Greater than ten years	0.0%
Total*	99.3%

*The remaining 0.7% consists of cash equivalents and other assets.

Interest Rate Risk – Higher Education

As of June 30, 2016, the Institutions of Higher Education had debt investments stated at fair value of approximately \$318 million and had investment maturities ranging from less than one year to more than ten years, with approximately 36.3% of the investment's fair values maturing in less than 1 year, approximately 45.9% from one to five years, approximately 7.3% from six to ten years, and approximately 10.5% more than ten years.

Interest Rate Risk - MSBA

The MSBA's investment policy does not specifically limit investment maturities as a means of managing its exposure to fair value losses arising from interest rates. As of June 30, 2016, the MSBA had approximately \$200 million invested in a collateralized guaranteed investment contract and approximately \$459 million invested in U.S. Treasury Bonds and Municipal Bonds. These investments are included in restricted investments on the balance sheet. The guaranteed investment contract matures on August 15, 2030 while the U. S. Treasury Bonds and Municipal Bonds mature from 2019 to 2045. These investments represent approximately 54% of the MSBA's total investments by par amount.

Interest Rate Risk – Agency Funds

The agency funds hold certain debt investments in trust as collateral for regulatory purposes. As of June 30, 2016, these investments had a fair value of approximately \$583 million, with investment maturities ranging from less than one year to more than ten years. Of the total fair value, approximately 26.7% has maturities of less than one year, 38.5% from one to five years, 18.2% from six to ten years and 16.6% greater than ten years.

Credit Risk – MMDT

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The Commonwealth, exclusive of Pension Trust Funds, minimizes concentration of credit risk, the risk attributed to the magnitude of the investment in a single issuer. The Commonwealth's investment policy prohibits the Treasury from investing more than 5% of the total investment portfolio in any single financial institution or issuer, excluding various public entity securities and repurchase agreements. However, there are no restrictions on the amount that can be invested in public entity securities and the portfolio may be invested in U.S. Treasury and other Government Sponsored Enterprises (GSE's) obligations and repurchase agreements.

The Treasury cash portfolio is invested only in First Tier and Second Tier Securities as defined by the Securities and Exchange Commission's Rule 2A-7 of the [Investment Company Act of 1940](#). The Treasury does have additional policies regarding credit ratings of investments which can be found at <http://www.mymmdt.com/MMDT/daf/pdf/products/regulatory/G44885-27.pdf>. At June 30, 2016, the Cash Portfolio's securities were rated as follows: First tier 97.0% and Second Tier 3.0%.

At June 30, 2016, the Short Term Bond Portfolio's follows:

Portfolio Composition	Percentage of Total Net Position
AAA.....	66.80%
AA.....	3.60%
A.....	14.70%
BBB	14.20%
Total*	<u>99.30%</u>

* The remaining 0.7% consists of cash equivalents and other assets.

Credit Risk – Higher Education

For the Institutions of Higher Education presented in the Business-Type Activities, fair values of debt investments were approximately \$86 million at AAA, approximately \$76 million from AA+ to A- and approximately \$156 million either unrated, BBB+ or less.

Credit Risk – MSBA

The MSBA's investment policy generally limits investments in fixed income products with institutions that have an investment grade rating as determined by one of the nationally recognized rating agencies. The MSBA's policy requires issuers of investment contracts to be rated AA or above by at least two of the nationally recognized rating agencies or A with pledged collateral equal to 102% of the principal balance. As of June 30, 2016, the guaranteed investment contracts were not rated; however, the issuer was rated AA by Standard & Poor's and A2 by Moody's and the guaranteed investment contracts were collateralized.

As of June 30, 2016, the MSBA's investments in municipal bonds were rated AA+ or above.

Credit Risk – Agency Funds

The agency funds debt investments with a fair value of \$583 million, of which approximately \$461 million were in U.S Government securities. The remaining \$122 million were unrated as of June 30, 2016.

Interest Rate Risk – PRIT Funds

As pension trust funds have a longer investment horizon than many of the Commonwealth's other investments, the PRIM Board manages PRIT's exposure to fair value loss arising from movements in interest rates by establishing duration guidelines with its fixed income investment managers. The guidelines with each individual manager require that the effective duration of the domestic fixed income investment portfolio be within a specified percentage or number of years of the effective duration band of the appropriate benchmark index. For emerging markets fixed income investments, the portfolio must have a duration with a band ranging from three to eight years.

Effective duration is a measure of a fixed income investment's exposure to fair value changes arising from changes in interest rates. Effective duration makes assumptions regarding the most likely timing and amounts of variable cash flows. These assumptions take into consideration factors indicative of investments highly sensitive to interest rate changes, including callable options, prepayments and other factors.

The PRIM Board compares the effective duration of a manager's portfolio to the Barclays Capital Aggregate Index for domestic core fixed income securities and the Merrill Lynch High Yield Master II Index for domestic high yield fixed income securities. The PRIT Fund had fixed income and short-term investments totaling approximately \$15.834 billion at fair value with an effective weighted average duration range from 0.45 to 22.60 years at June 30, 2016.

Credit Risk – PRIT Funds

The PRIM Board establishes credit investment guidelines with each of its fixed income securities investment managers in establishing a diversified portfolio. These guidelines vary depending on the manager's strategy and the role of its portfolio to the overall diversification of the PRIT fund. The guidelines for the PRIT Fund's core fixed income portfolio establish the minimum credit rating for any security in the portfolio and the overall weighted average credit rating of the portfolio. The guidelines for the PRIT Fund's high yield, fixed income portfolio establish a market value range of securities to be held with a specific minimum credit rating and the overall weighted average credit rating of the portfolio.

Credit risk for derivative instruments held by PRIT results from counterparty risk. PRIT is exposed to credit risk resulting from counterparties being unable to meet their obligations under the terms of the derivative agreements. The weighted average quality rating of the debt securities portfolio, excluding pooled investments, investments explicitly backed by the United States Government and other nonrated investments was BBBB+ at June 30, 2016.

Credit ratings associated with the Commonwealth's investment in the PRIT Fund ranged from AAA to A- investments with a fair value of approximately \$2.458 billion, BBB+ to B- investments with a fair value of approximately \$2.647 billion, \$168 million rated CCC+ to D, \$5.423 billion are unrated, and the remaining \$5.762 billion are investments that are explicitly backed by the U. S. Government.

Foreign Currency Risk – PRIT Funds

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of investments. The Treasury does not have a policy regarding foreign currency risk for the Pension Trust. The PRIM Board manages PRIT's exposure to foreign currencies by hedging a percentage of PRIT's non-U.S. dollar denominated investments through forward foreign currency contracts. The PRIT Fund's investments in foreign currency denominated investments as of June 30, 2016 were approximately \$180 million in cash and investments, \$12.678 billion in equities, \$2.067 billion in fixed income investments, \$141 million in hedge funds and portfolio completion strategies, \$1.139 billion in private equity investments and \$175 million in timber investments. An additional \$2.628 billion is invested in international investments denominated in U. S. dollars.

Concentration of Credit Risk – PRIT

The PRIM Board manages PRIT's exposure to concentration of credit risk by establishing guidelines with each investment manager that limit the percent of investment in any single issue or issuer.

PRIT has no investments at fair value that exceed 5% of PRIT's net position held in trust for pool participants as of June 30, 2016.

A. DERIVATIVE INSTRUMENTS

PRIT may invest in derivative transactions. In accordance with GASB Statement No 53, *Accounting and Financial Reporting for Derivative Instruments*, PRIT's derivatives are accounted for as investment derivatives and are reported at fair value.

Forward Currency Contracts

PRIT enters into forward currency contracts to hedge the exposure to changes in foreign currency exchange rates on foreign portfolio holdings. The market value of the contracts will fluctuate with changes in currency exchange rates. Risks may arise from the potential inability of counterparties to meet the terms of their contracts and from unanticipated movements in the value of a foreign currency relative to the U.S. dollar.

The contracts are marked-to-market daily and the change in market value is recorded as an unrealized gain or loss by PRIT.

When a contract is closed, PRIT records a realized gain or loss equal to the difference between the value of the contract

at the time it was opened and the value at the time it was closed.

As of June 30, 2016, PRIT had open foreign exchange contracts with combined net unrealized gain of approximately \$26 million with various delivery dates.

Further information on derivative instruments can be found in the notes to PRIT's basic financial statements.

Futures Contracts

PRIT may purchase and sell financial futures contracts to hedge against changes in the values of securities the fund owns or expects to purchase.

Upon entering such contracts, they must pledge to the broker an amount of cash or securities equal to a percentage of the contract amount.

The potential risk is that the change in the value of futures contracts may not correspond to the change in the value of underlying instruments, which may not correspond to the change in value of the hedged instruments. In addition, there is a risk that PRIT may not be able to close out its future positions due to a non-liquid secondary market. Risks may also arise from the potential inability of a counterparty to meet the terms of a contract and from unanticipated movements in the value of a foreign currency relative to the U.S. dollar.

PRIT may also invest in financial futures contracts for non-hedging purposes.

PRIT held contracts outstanding at June 30, 2016 with various expirations from FY17 to FY19. These contracts are for cash and cash equivalents, fixed income, equities and commodities. A portion of the contracts were short contracts. The aggregated notional exposure amount as of June 30, 2016 was approximately \$945 million with a fair value of \$955 million, yielding an unrealized net gain of approximately \$10 million.

Payments are made or received by PRIT each day, depending on the daily fluctuations in the value of the underlying security and are recorded as unrealized gains or losses. When the contracts are closed, the PRIT Fund recognizes a realized gain or loss.

Swaps – PRIT

PRIT has entered into swap agreements to gain exposure to certain markets and actively hedge other exposures to market and credit risk. The swap contracts are reported at fair value, which represents their estimated liquidation values on costs. PRIT either receives cash from the swap counterparties or pays the swap counterparties monthly depending on whether the fixed-rate interest is lower or higher than the variable-rate interest. Changes in fair value are included as part of investment income.

As of June 30, 2016, PRIT had contracts in effect with an aggregated notional amount of approximately \$1.157 billion to various investment banks that had maturity dates from FY17 to FY63. The contracts have an aggregate fair value loss of approximately \$18 million. PRIT values these contracts using standard methods and techniques including the discounted cash flow analysis and option pricing models.

PRITs counterparty exposure was with various major investment companies with ratings ranging from AA- to BBB and various other banks with other ratings. Open swap contracts as of June 30, 2016 were as follows (amounts in thousands):

Counterparty	Credit Ratings	Interest Rate Swaps		Credit Default Swaps		Inflation Swaps	
		Gross Notional	Fair Value	Gross Notional	Fair Value	Gross Notional	Fair Value
Bank of America NA.....	A	\$ —	\$ —	\$ 11,436	\$ (1,818)	\$ —	\$ —
Barclays Bank PLC.....	A	—	—	8,871	(425)	27,430	(1,003)
CME Group Inc.....	AA-	323,755	(7,906)	—	—	—	—
Deutsche Bank AG.....	BBB	13,078	(496)	8,300	(131)	—	—
Goldman Sachs	A	—	—	15,850	(589)	10,661	5,990
IntercontinentalExchange Holdings Inc.....	A	—	—	13,800	(720)	—	—
LCH. Clearnet Ltd	A+	147,600	(6,353)	—	—	—	—
U.S. Bank National Association.....	AA-	500,000	(3,408)	—	—	—	—
All others.....	Various	47,705	(649)	28,200	(1,185)	669	206
Totals.....		<u>\$ 1,032,138</u>	<u>\$ (18,812)</u>	<u>\$ 86,457</u>	<u>\$ (4,868)</u>	<u>\$ 38,760</u>	<u>\$ 5,193</u>

B. DISCRETELY PRESENTED COMPONENT UNIT INVESTMENTS

Component units invest in derivative transactions. Detailed information on those transactions is found in the notes to the basic financial statements of those component units.

C. FAIR VALUE MEASUREMENTS OF INVESTMENTS

In accordance with GASB 72, the Commonwealth categorizes the fair value measurements of its investments within the fair value hierarchy established by generally accepted accounting principles. The fair value hierarchy categorizes the inputs to valuation techniques used for fair value measurement into three levels as follows:

- Level 1 - Inputs are quoted prices for identical investments in active markets.
- Level 2 - Observable inputs other than quoted market prices.
- Level 3 - Unobservable inputs.

The fair value hierarchy gives the highest priority to Level 1 inputs and the lowest priority to Level 3 inputs. In certain instances where the determination of the fair value measurement is based on inputs from different levels of the fair value hierarchy the level in the fair value hierarchy is based on the lowest level of input that is significant to the fair measurement.

The Commonwealth's investments in the MMDT Bond Fund and the net investment in PRIT are reported at fair value.

The following tables present a summary of the fair value hierarchy of investments at June 30, 2016 (amounts in thousands):

<i>Primary government</i>	Total	Level		
		1	2	3
Debt securities:				
US Treasury and agency securities.....	\$ 543,454	\$ 541,493	\$ 1,961	\$ —
Municipal securities	117,469	19,464	98,005	—
Institutional money market funds.....	195,981	195,981	—	—
Corporate debt/bonds	87,376	13,720	73,498	158
Corporate stock.....	6,330	6,330	—	—
Asset backed securities.....	23,951	—	23,951	—
Registered investment companies	10,124	10,124	—	—
Mortgage backed securities	16,288	—	16,288	—
Other fixed income.....	151,384	137,608	13,776	—
Total debt securities.....	1,152,357	924,720	227,479	158
Equity securities	230,495	227,339	2,306	850
Investments measured at the Net Asset Value (NAV):				
Mutual funds.....	63,647			
US Treasuries/Agencies	303			
Commonfund (pooled investment funds).....	231,017			
Private equity.....	1,147			
Private debt.....	14,989			
Private real estate.....	3,497			
Total investments measured at the NAV.....	314,600			
Other investments at fair value:				
MMDT - bond fund.....	271,744			
Commodities	9,108			
REITS	18,458			
Total other investments at fair value	299,310			
Total investments at fair value.....	1,996,762	\$ 1,152,059	\$ 229,785	\$ 1,008
Other investments:				
Guaranteed investment contracts.....	200,098			
Certificates of deposit.....	15,046			
Other	208,091			
Total other investments.....	423,235			
Total investments - primary government.....	\$ 2,419,997			
Investment derivative instruments:				
Interest rate swaps (liabilities).....	\$ 433,231	\$ —	\$ 433,231	\$ —

Included in the preceding schedule is approximately \$8 million of various money mutual fund investments related to the business type activities which are classified as cash equivalents in the accompanying financial statements.

Lottery annuity contracts of approximately \$1.195 billion as of June 30, 2016 is presented in governmental activities on the Statement of Net Position and also in the fiduciary funds as further explained in the Reconciliation of Fund Balances to the Statement of Net Position. In these fair value tables, the annuity contracts are presented in the fiduciary funds below.

<i>Fiduciary funds:</i>	Total	Level		
		1	2	3
Debt securities:				
US Treasury securities.....	\$ 1,426,294	\$ 1,426,294	\$ —	\$ —
Bonds.....	117,261	—	117,261	—
Total debt securities.....	1,543,555	1,426,294	117,261	—
Equities:				
Domestic equities	71,925	71,925	—	—
Investments measured at the Net Asset Value (NAV):				
Mutual funds.....	50,437			
Other investments at fair value:				
MMDT - bond fund.....	39,467			
Net investment in PRIT	60,692,805			
Total other investments at fair value	60,732,272			
Subtotal investments at fair value	62,398,189	\$ 1,498,219	\$ 117,261	\$ —
Other investments:				
Annuity contracts.....	111,700			
Total investments - fiduciary funds.....	\$ 62,509,889			

3. RECEIVABLES

Taxes, federal reimbursements, loans and other receivables are presented in the statement of net position, exclusive of amounts due from cities and towns and component units as follows (amounts in thousands):

<i>Primary Government</i>	Taxes Receivable	Federal Grants and Reimbursements	Loans	Other Receivables	Total
<u>Governmental Activities:</u>					
Gross receivables.....	\$ 4,760,999	\$ 2,039,299	\$ 107,188	\$ 1,525,727	\$ 8,433,213
Less: allowance for uncollectibles	(1,284,218)	(143,920)	—	(1,133,391)	(2,561,529)
Receivables, net allowance for uncollectibles...	3,476,781	1,895,379	107,188	392,336	5,871,684
Less: current portion.....	(3,083,179)	(1,835,444)	(14,347)	(342,493)	(5,275,463)
Noncurrent receivables.....	\$ 393,602	\$ 59,935	\$ 92,841	\$ 49,843	\$ 596,221
<u>Business-Type activities:</u>					
Gross receivables.....	\$ —	\$ 105,572	\$ 58,318	\$ 968,561	\$ 1,132,451
Less: allowance for uncollectibles	—	(2,108)	(3,087)	(242,006)	(247,201)
Receivables, net allowance for uncollectibles...	—	103,464	55,231	726,555	885,250
Less: current portion.....	—	(103,464)	(45,648)	(666,784)	(815,896)
Noncurrent receivables.....	\$ —	\$ —	\$ 9,583	\$ 59,771	\$ 69,354

4. INTERFUND RECEIVABLES, PAYABLES AND TRANSFERS BETWEEN FUNDS

The purposes of interfund receivables, payables and transfers between funds vary by legislative authority. Transfers include the following: intergovernmental services, fringe benefit cost assessments, the year-end Stabilization Fund transfer, certain license fees collected by the Registry of Motor Vehicles that fund various highway project initiatives, fund closure transfers, and various other transfers for operations, largely for Institutions of Higher Education.

Activity between funds reflected as due to/from primary government in the various statements is summarized as follows (amounts in thousands):

	General	Lotteries	Other Governmental Funds	Total
Governmental funds:				
<u>Transfers in:</u>				
Debt service	\$ —	\$ —	\$ 2,423,292	\$ 2,423,292
Transfers in	1,739,219	—	1,685,542	3,424,761
Subtotal	1,739,219	—	4,108,834	5,848,053
<u>Transfers out:</u>				
Appropriations	(1,201,542)	—	(1,316)	(1,202,858)
Transfer of bond proceeds	—	—	(223,935)	(223,935)
Debt service	(999,252)	—	(1,424,040)	(2,423,292)
Transfers out	(897,833)	(1,092,130)	(1,254,060)	(3,244,023)
Subtotal	(3,098,627)	(1,092,130)	(2,903,351)	(7,094,108)
Total governmental funds	(1,359,408)	(1,092,130)	1,205,483	(1,246,055)
Proprietary funds:	University of Massachusetts	State Universities	Community Colleges	Total
<u>Transfers in:</u>				
Transfers in from the General Fund and other governmental funds	646,824	342,762	437,207	1,426,793
<u>Transfers out:</u>				
Transfers out to the General Fund	(113,503)	(35,732)	(31,503)	(180,738)
Total proprietary funds	\$ 533,321	\$ 307,030	\$ 405,704	1,246,055
Net transfers in/(out) between funds				\$ —

Due to/from component units on the Statement of Net Position reflects a timing difference for payments of approximately \$14 million at year end.

Remaining receivables and payables between funds as of June 30, 2016 largely occur due to the timing of accruals and the funding of escrows. The University of Massachusetts also reported unremitted benefits costs as of June 30, 2016. The amount due to the General Fund largely represents deficits funded by the General Fund. The following is a summary of receivables and payables between funds remaining as of June 30, 2016 (amounts in thousands):

Receivable Fund	Payable Fund	Amount
Governmental Funds:		
General	Nonmajor Governmental Funds	\$ 19,271
Non-major Governmental Funds	Nonmajor Governmental Funds	87,791
Total Governmental Funds		\$ 107,062

5. CAPITAL ASSETS

Capital asset activities for the fiscal year ended June 30, 2016 were as follows (amounts in thousands):

<i>Primary Government Governmental Activities</i>	July 1, 2015 Beginning Balance	Increases	Decreases and Reclassifications	June 30, 2016 Ending Balance
Capital assets not being depreciated:				
Land.....	\$ 861,487	\$ 16,703	\$ (697)	\$ 877,493
Construction in process	960,752	259,768	(401,199)	819,321
Total capital assets not being depreciated	1,822,239	276,471	(401,896)	1,696,814
Capital assets being depreciated:				
Buildings	5,423,867	331,726	—	5,755,593
Machinery and equipment	1,185,634	231,354	(38,122)	1,378,866
Infrastructure non - central artery/tunnel project	405,494	3,080	—	408,574
Total capital assets being depreciated.....	7,014,995	566,160	(38,122)	7,543,033
Less, accumulated depreciation:				
Buildings	(3,037,701)	(112,807)	—	(3,150,508)
Machinery and equipment	(956,713)	(143,731)	4,390	(1,096,054)
Infrastructure non - central artery/tunnel project	(240,498)	(9,069)	—	(249,567)
Total accumulated depreciation.....	(4,234,912)	(265,607)	4,390	(4,496,129)
Total capital assets being depreciated, net.....	2,780,083	300,553	(33,732)	3,046,904
Governmental activity capital assets, net	4,602,322	577,024	(435,628)	4,743,718
<i>Business - Type Activities</i>				
Capital assets not being depreciated:				
Land.....	118,415	19,522	—	137,937
Construction in process	758,620	688,529	(398,570)	1,048,579
Historical treasures	1,196	948	(384)	1,760
Total capital assets not being depreciated	878,231	708,999	(398,954)	1,188,276
Capital assets being depreciated:				
Buildings	8,674,180	496,471	(8,467)	9,162,184
Machinery and equipment	1,066,263	81,222	(41,524)	1,105,961
Library collections, not including historical treasures	94,081	758	(10,458)	84,381
Total capital assets being depreciated.....	9,834,524	578,451	(60,449)	10,352,526
Less, accumulated depreciation:				
Buildings	(3,703,322)	(310,023)	4,104	(4,009,241)
Machinery and equipment	(309,064)	(57,500)	38,410	(328,154)
Library collections, not including historical treasures	(16,153)	(487)	1,368	(15,272)
Total accumulated depreciation.....	(4,028,539)	(368,010)	43,882	(4,352,667)
Total capital assets being depreciated, net.....	5,805,985	210,441	(16,567)	5,999,859
Business - type activity capital assets, net.....	6,684,216	919,440	(415,521)	7,188,135
Total Primary Government capital assets, net.....	\$ 11,286,538	\$ 1,496,464	\$ (851,149)	\$ 11,931,853

Depreciation expense was charged to the various functions of governmental and business-type activities as follows (amounts in thousands):

Function	Amount
General government.....	\$ 102,960
Judiciary.....	32,329
Health and human services	55,272
Early elementary and secondary education	672
Public safety and homeland security	66,679
Housing and economic development.....	51
Labor and workforce development.....	7,644
Total depreciation, governmental activities	<u>\$ 265,607</u>
University of Massachusetts	\$ 240,865
State universities	93,119
Community colleges	34,026
Total depreciation, business-type activities.....	<u>\$ 368,010</u>

6. SHORT-TERM FINANCING AND CREDIT AGREEMENTS

Massachusetts General Laws authorize the Treasurer to issue temporary notes in anticipation of revenue or bond financing. Short-term borrowing may be issued as fixed rate notes, floating rate notes or through a commercial paper program supported by bank liquidity facilities maintained by the Commonwealth. Per the State Constitution, revenue anticipation notes (RANs) issued for cash flow purposes are required to be paid within the same fiscal year. Temporary financings for capital needs, such as bond anticipation notes, may be outstanding for up to five years, per statute.

A. GENERAL FUND

The balance of revenue anticipation notes (RANs) and commercial paper outstanding may fluctuate during a fiscal year, but all short-term borrowing for cash flow purposes must be reduced to zero by June 30. For short-term borrowing for cash flow purposes, the Commonwealth borrowed \$1.2 billion by selling RANs in September, 2015. All \$1.2 billion in RANs were retired in April, May and June 2016.

On November 24, 2015, the Commonwealth issued \$200 million in tax-exempt commercial paper bond anticipation notes (BANs) in anticipation of the issuance of bonds. These notes were redeemed with a portion of the long-term tax-exempt General Obligation Bonds, Consolidated Loan of 2016, Series D and E, dated June 22, 2016.

The following schedule details short-term financing for all funds for the fiscal year (amounts in thousands):

	Beginning Balance July 1, 2015	Issued/ Drawn	Redeemed/ Repaid	Ending Balance June 30, 2016
General Fund:				
Revenue anticipation notes.....	\$ —	\$ 1,200,000	\$ (1,200,000)	\$ —
Capital Projects Funds:				
Commercial paper - bond anticipation notes.....	—	200,000	(200,000)	—
Total primary government.....	<u>\$ —</u>	<u>\$ 1,400,000</u>	<u>\$ (1,400,000)</u>	<u>\$ —</u>

B. CREDIT FACILITIES

During FY16, the Commonwealth maintained credit facilities to provide liquidity support for commercial paper notes totaling \$400 million. The Commonwealth started FY16 with one credit facility to provide such liquidity support, in the amount of \$200 million. That facility will expire in FY18. During the fiscal year, another credit facility was added to provide liquidity support for an additional \$200 million in commercial paper notes. This facility will expire in FY19. In addition to credit facilities for commercial paper, the Commonwealth maintained standby bond purchase agreements for outstanding Variable Rate (VR) Demand Bonds sold from FY00 through FY06. These VR bonds require external liquidity support because bond-holders have the right to tender the bonds back to the Commonwealth at par at any time by an investor. As of June 30, 2016, these agreements totaled \$636 million.

MSBA

During FY16, the MSBA maintained credit facilities to provide liquidity support for commercial paper notes totaling \$450 million. The \$150 million Commercial Paper Notes, Series 2015 A, are secured by an irrevocable letter of credit (LOC) provided by Bank of America, N.A., which expires in March 2018. The \$150 million Commercial Paper Notes, Series B, are secured by an irrevocable LOC provided by Citibank, N.A., which expires in March 2018. The \$150 million Commercial Paper Notes, Series 2015 C, are secured by an irrevocable LOC provided by Barclays Bank PLC, which expires in March, 2018. As of June 30, 2016, there were no draws against available balances on the three lines of credit.

7. LONG-TERM OBLIGATIONS

Section 1 of Article 62 of the Massachusetts Constitution empowers the State Legislature to borrow money on the credit of the Commonwealth for various public purposes. Under the state Constitution, the Commonwealth may pledge its credit to borrow money only by a vote of two-thirds of each house of the Legislature. Borrowed funds may be used for defense of the state or of the United States, and in anticipation of receipts from taxes or other sources, “any such loan to be paid out of the revenue of the year in which the loan is made.” The Legislature may not in any manner allow the Commonwealth’s credit to be given or loaned to or in aid of any individual, or of any private association, or of any corporation, which is privately owned or managed. The Constitution further provides that borrowed money shall not be expended for any other purpose than that for which it was borrowed or for the reduction or discharge of the principal of the loan.

Statutorily, the authority to borrow is delegated to the Massachusetts State Treasurer & Receiver General pursuant to Chapter 29 of the Massachusetts General Laws. Section 49 of Chapter 29 of the Massachusetts General Laws is the primary statute governing the issuance of Commonwealth debt and contains a number of provisions spelling out the process for the issuance of bonds.

The issuance of bonds to fund the Commonwealth’s capital needs must be authorized by the Legislature. Pursuant to legislative authorizations to borrow, the Governor determines the amount and timing of any authorized borrowing to

fund capital investments. At the request of the Governor, the State Treasurer & Receiver General borrows by issuing bonds to the public. The Governor approves the use of the bond proceeds by agencies to pay for authorized and budgeted capital projects.

Massachusetts General Law provides for the allocation of bond proceeds to bond authorizations and capital spending in arrears (as needed), as expenditures are made, or at the time of issuance of the bonds. In general, bond proceeds are primarily allocated to capital spending that has already occurred. When allocating in arrears, the allocation of segregated bond proceeds is a reimbursement to the General Fund.

Bond proceeds that are awaiting allocation are typically invested by the State Treasurer in the Commonwealth's primary investment vehicle, the Massachusetts Municipal Depository Trust (MMDT) (for more information please see the notes on the Commonwealth's short-term investments). Bond proceeds are segregated from other funds until they are allocated to capital expenditures, a process that requires review by the Commonwealth's bond counsel.

The Commonwealth has waived its sovereign immunity and consented to be sued on contractual obligations, including bonds and notes issued by it and all claims with respect hereto. However, the property of the Commonwealth is not subject to attachment or levy to pay a judgment, and the satisfaction of any judgment generally requires legislative appropriation. Enforcement of a claim for the payment of principal or interest on bonds and notes of the Commonwealth may also be subject to the provisions of federal or Commonwealth statutes, if any, enacted to extend the time for payment or impose other constraints upon enforcement. The Commonwealth cannot file for bankruptcy under the United States Bankruptcy code.

As of June 30, 2016, the Commonwealth had issued two types of long-term debt obligations: general obligation bonds and special obligation bonds. General obligation bonds, which account for the large majority of outstanding Commonwealth bonds, are backed by the full faith and credit of the Commonwealth. Special obligation bonds, however, are bonds secured by all or a portion of a specific revenue source that are pledged to bondholders and are not general obligations of the Commonwealth. For these types of securities, bondholders rely on pledged revenue only for repayment of principal and interest.

The following is a summary of the Commonwealth's outstanding debt, exclusive of capital leases, (amounts in thousands):

Type of Bond	Amount Outstanding
General obligation bonds, net proceeds.....	\$ 22,754,883
Special obligation bonds (including GANs), net proceeds	3,660,848
Outstanding Commonwealth bonds, net proceeds	26,415,731
MSBA bonds, net proceeds	6,198,531
Total governmental activities, net proceeds	32,614,262
Less:	
Unamortized premiums on general obligation bonds	(1,086,587)
Unamortized premiums on special obligation bonds	(249,553)
Unamortized premiums on MSBA bonds	(574,256)
Total governmental activities, principal.....	\$ 30,703,866

The general obligation (GO) bonds listed in the table above include outstanding tax-exempt bonds, taxable bonds including Build America Bonds, College Opportunity Bonds, and debt assumed from former counties. The special obligation (SO) bonds listed above include outstanding tax-exempt and taxable bonds (including Build America Bonds and Recovery Zone Economic Development Bonds) secured by indentures that legally define the specific revenues pledged to bondholders, as defined in the trust agreement. This includes outstanding bonds or notes secured by Federal Highway funds to be received by the Commonwealth, certain portions of the Commonwealth's motor fuel excise taxes and Registry of Motor Vehicle fees and dedicated taxes and fees levied in certain geographic areas of the state to support

the Commonwealth's convention center facilities. As of June 30, 2016, there were four different special obligation bond programs with bonds outstanding. It should be noted that one of the four bond programs has a closed lien, meaning that no additional new-money bonds will be issued under that specific special obligation bond indenture.

The following is a table of GO bonds principal outstanding as of June 30, 2016, (amounts in thousands):

General Obligation Bonds	Principal Outstanding	Percent of Total GO
Fixed rate bonds	\$ 17,878,816	82.5%
Variable rate bonds.....	3,789,480	17.5%
Total	<u>\$ 21,668,296</u>	<u>100.0%</u>

The following is a table of the different types of outstanding variable rate GO bonds, (amounts in thousands):

Variable Rate GO Bonds	Principal Outstanding	Percent of Total GO
Direct purchase bonds	\$ 960,500	4.4%
Variable rate demand bonds.....	636,090	2.9%
Auction rate securities	401,500	1.9%
CPI-index bonds	100,000	0.5%
LIBOR index bonds.....	845,795	3.9%
SIFMA index bonds.....	645,595	3.0%
Multi-Modal	200,000	0.9%
Total.....	<u>\$ 3,789,480</u>	<u>17.5%</u>

The following is a table of hedged and unhedged variable rate GO bonds, (amounts in thousands):

	Principal Outstanding	Percent of Total GO
Hedged variable rate GO bonds	\$ 2,316,485	10.7%
Unhedged variable rate GO bonds	1,472,995	6.8%
Total variable rate GO bonds.....	<u>\$ 3,789,480</u>	<u>17.5%</u>

The following is a table of SO bond principal, by rate structure, outstanding as of June 30, 2016, (amounts in thousands):

Special Obligation Bonds	Principal Outstanding	Percent of Total SO
Fixed rate bonds	\$ 3,269,285	95.8%
Variable rate bonds.....	142,010	4.2%
Total.....	<u>\$ 3,411,295</u>	<u>100.0%</u>

All of the variable rate special obligation bonds are hedged as of June 30, 2016.

The following is a table of the different types of outstanding Special Obligation bonds (amounts in thousands):

Special Obligation Bonds	Amount Outstanding
Special obligation dedicated tax revenue bonds, net proceeds:	
Fixed rate convention center bonds	\$ 554,273
CPI variable rate convention center bonds	45,520
Total convention center bonds, net proceeds.....	599,793
Special obligation revenue bonds, net proceeds:	
Fixed rate gas tax bonds.....	74,245
CPI variable rate gas tax bonds.....	96,490
Total gas tax bonds, net proceeds.....	170,735
Special obligation revenue bonds, net proceeds:	
Accelerated bridge program.....	1,622,137
Special obligation federal highway grant anticipation notes and accelerated bridge program.....	767,025
Special obligation revenue bonds, net proceeds:	
Rail enhancement program	501,158
Total special obligation bonds, net proceeds.....	3,660,848
Less: unamortized premiums	(249,553)
Outstanding special obligation principal.....	<u>\$ 3,411,295</u>

A. GENERAL OBLIGATION BONDS

General obligation bonds are authorized and issued primarily to provide funds for the Commonwealth's five-year capital improvement program (CIP), including capital infrastructure projects throughout the state as well as Commonwealth-supported local government capital improvements. The five-year plan is developed by the Executive Office for Administration and Finance (A&F) and updated annually. The CIP is primarily funded through the issuance of bonds that are sold by the State Treasurer and Receiver General. The Commonwealth borrows from the capital markets by selling GO bonds and notes pursuant to Chapter 29 of the Massachusetts General Laws. GO bonds are backed by the full faith and credit of the Commonwealth and are paid from the Governmental Funds, to which debt service principal and interest payments are appropriated in the state's operating budget.

In addition to GO bonds issued to fund the state's capital needs, certain bonds are approved by the Legislature to be issued for a specific program. These bonds, known as College Opportunity Bonds, are issued pursuant to statute directly to the Massachusetts Educational Financing Authority for its pre-paid tuition program called the "U. Plan". As of June 30, 2016, the Commonwealth had approximately \$143 million in "U. Plan" bonds (at accreted value) outstanding. Pursuant to statute, all of the outstanding bonds are variable rate bonds. Interest on the bonds is based on the percentage change in the consumer price index plus 2.0% together with current interest at the rate of 0.5%.

In terms of bond structure, the large majority of GO bonds have been sold as fixed rate obligations. As of June 30, 2016, approximately 82.5% of the Commonwealth's outstanding GO debt is in the form of fixed-rate bonds. The remaining 17.5% of outstanding GO debt is in the form of variable rate bonds – bonds whose rate of interest fluctuate based on market or market index changes. The outstanding GO variable rate debt consists of several different variable rate structures. These structures include floating rate notes in various interest rate modes, direct purchase agreements in various interest rated modes, multi-modal bonds currently in the Term Mode, and variable rate demand bonds. Variable rate demand bonds, or "VRDBs", are long-term bonds whose interest rates re-set daily or weekly through an active remarketing process. Because these bonds provide bondholders with a "put" or tender feature enabling the bonds

to be sold back to the Commonwealth at par at any time by an investor, they are supported by standby liquidity facilities provided by third-party commercial banks which require the applicable bank to purchase any bonds that are tendered by investors and not successfully remarketed. As of June 30, 2016, the Commonwealth had approximately \$636 million in outstanding VRDBs. This accounts for approximately 2.9% of total GO debt and approximately 16.8% of total GO variable-rate debt. All of these bonds are uninsured. As of June 30, 2016, none of the Commonwealth's outstanding VRDBs have been subject to failed remarketing and "put" back to the Commonwealth; consequently, there have not been any draws on any of the outstanding bank liquidity facilities.

The Commonwealth has also issued GO variable-rate debt in the form of auction-rate securities. Like VRDBs, these are long-term bonds whose interest rates are re-set at pre-determined, short-term intervals. Unlike VRDBs, these bonds do not provide bondholders with a "put" feature and therefore do not require a supporting credit facility from a commercial bank. The Commonwealth's outstanding auction-rate securities have long-term nominal maturities with interest rates that reset every seven days. A periodic "Dutch auction" process is designed to provide a mechanism of liquidity to bondholders, with bonds re-priced and traded in auctions managed by broker-dealers. Beginning in February 2008 and continuing through FY16, however, all of the Commonwealth's outstanding auction rate securities experienced auction failure on the days interest rates were to re-set, meaning there were insufficient bids from new investors to purchase the securities being offered for sale by existing bondholders. Upon auction failure, the interest rate paid to existing bondholders is the failure rate as specified in the bond documents. For the series of Commonwealth bonds whose auctions have experienced failures (approximately \$402 million in total outstanding debt obligations, including Commonwealth of Massachusetts GO Bonds, Series 2000D, 2000E, 2000F, and 2000G), the failure rate is based on a multiple of the 7-day non-financial commercial paper rate as published by the Federal Reserve, with a maximum failure rate of 12%. The failed auctions have resulted in actual interest costs to the Commonwealth that are consistently below budgeted debt service levels of 5%.

A portion of the Commonwealth's outstanding bonds have been directly purchased by banks (or "direct purchase bonds"). These variable rate, direct purchase bonds bear interest at an index rate and are payable on the first business day of each month until maturity. As of June 30, 2016, the Commonwealth had \$961 million direct purchase bonds outstanding.

The following table details the general obligation direct purchase bonds (amounts in thousands):

Series	Par Outstanding	Final Maturity	Reset Mode/ Payment Frequency	Direct Purchase Bank	Direct Purchase Agreement Date	Direct Purchase Expiration Date
2001 Series B Refunding Bonds	\$ 210,500	1/1/2021	1 Month LIBOR/ Monthly Pay	Bank of America Merrill	8/1/2014	8/1/2017
2015 Series B Refunding Bonds	125,000	2/1/2018	1 Month SIFMA/ Monthly Pay	JP Morgan Chase Bank	12/23/2015	2/1/2018
2015 Series C Refunding Bonds	125,000	2/1/2019	1 Month SIFMA/ Monthly Pay	JP Morgan Chase Bank	12/23/2015	2/1/2019
2006 Series B, Subseries B-1 & B-2	200,000	3/1/2026	1 Month LIBOR/ Monthly Pay	Bank of America Merrill	5/5/2016	5/31/2019
2016 Series B.....	100,000	4/1/2021	1 Month LIBOR/ Monthly Pay	TD Bank	5/10/2016	4/1/2021
2016 Series C.....	200,000	4/1/2021	1 Month LIBOR/ Monthly Pay	State Street	5/12/2016	4/1/2021
Total.....	<u>\$ 960,500</u>					

The remaining outstanding GO variable-rate debt pays interest to bondholders based on certain indices. For example, as of June 30, 2016, the Commonwealth had approximately \$100 million of bonds that pay interest based on the consumer price index (CPI); \$846 million of bonds that pay interest based on the three-month London Interbank Offered Rate (LIBOR); and \$646 million of bonds that pay interest based on the Securities Industry and Financial Markets Association (SIFMA) Index. These bonds make up approximately 0.5%, 3.9% and 3.0% of total outstanding general obligation indebtedness, respectively.

To fund the FY16 capital budget and prior capital spending, the Commonwealth borrowed by issuing \$2.759 billion in long-term bonds, \$2.259 billion of which was general obligation debt, and \$500 million of which was special obligation debt secured by federal highway reimbursements and/or motor fuels taxes and motor vehicle license and registration fees. In addition, \$1.463 billion in refunding bonds were issued in four separate transactions. Two of these transactions were executed as current refundings a part of a stated plan of finance for the purpose of extending maturities to match that of certain existing hedges, while two of these transactions were advance refundings executed for savings. The present value savings of the advance refunding transactions are immaterial to these financial statements.

MSBA Debt

As of June 30, 2016, the MSBA had outstanding approximately \$5.624 billion of Dedicated Sales Tax bonds, including approximately \$574 million of unamortized premiums for the purpose of funding school construction and renovation projects. Coupons on the bonds range from approximately 2.0% to 5.715% and each series is payable semiannually with the latest maturity occurring in FY46. A portion of the interest on the Dedicated Sales Tax Bonds is reimbursed by the federal government. Of the \$5.624 billion of debt outstanding as of June 30, 2016, \$450 million is taxable Build America Bonds for which the MSBA is eligible to receive a 35% interest subsidy directly from the United States Treasury. In addition, \$293 million of the Subordinated Dedicated Sales Tax Bonds was issued as “Qualified School Construction Bonds” for which the MSBA is eligible to receive a 100% interest subsidy payment directly from the United States Treasury. During FY16, the federal government continued automatic budget cuts imposed through sequestration required pursuant to the Budget Control Act of 2011. In September 2014, the IRS published a notice indicating that subsidy payments processed on or after October 1, 2014 and on or before September 30, 2015 will be reduced by the FY15 sequestration rate of 7.3%. The notice was updated in August 2015 to announce that subsidy payments processed on or after October 1, 2015 and on or before September 30, 2016 will be reduced by the FY16 sequestration rate of 6.8%. The notice states that the sequestration reduction rate will be applied unless and until a law is enacted that cancels or otherwise modifies the sequester. The reductions were approximately \$1.7 million on the 2009 Series B Bonds, 2010 Series A Bonds, and 2011 Series A Bonds in FY16. On August 3, 2016, the IRS announced that the sequestration rate for the federal fiscal year ending September, 2017 would be 6.9%.

B. SPECIAL OBLIGATION BONDS

Commonwealth Transportation Fund (CTF)

The largest amount of special obligation bonds outstanding (by par) are bonds secured by certain revenues of the Commonwealth Transportation Fund. In FY16, the Commonwealth issued approximately \$50 million in special obligation bonds under the Accelerated Bridge Program (ABP) and \$450 million under the Rail Enhancement Program (REP). These bonds mature from FY17 to FY45 and are secured by a senior lien on 17 cents of the total 24 cents per gallon gasoline tax, the full 24 cents per gallon of special fuels taxes (comprised primarily of taxes on diesel fuel), and the full 19.1% of the average price per gallon tax on liquefied natural gas and all Registry of Motor Vehicle fees deposited into the CTF. These bonds also have a subordinate lien on 6.86 cents of the 24 cent per gallon gasoline tax not included in the senior lien. As of June 30, 2016, approximately \$1.536 billion and \$450 million in principal was outstanding on the ABP and REP bonds, respectively, and approximately \$1.183 billion and \$358 million of interest (net of the federal subsidy) was expected to be paid through maturity related to the ABP and REP bonds, respectively.

Motor Fuels Tax Bonds

Other special obligation bonds for highway construction purposes are secured by a senior lien on 6.86 cents of the 24 cent per gallon gasoline tax. As of June 30, 2016 bonds secured by these pledged funds totaled approximately \$171 million of principal. These bonds mature from FY17 to FY22 and were issued in multiple series. Principal and interest paid during FY16 amounted to approximately \$40 million and \$11 million, respectively.

Convention Center Fund

Chapter 152 of the Acts of 1997, as amended, authorized \$694 million of special obligation bonds to be issued for the purpose of building a new convention center in Boston (\$609 million), the Springfield Civic Center (\$66 million) and the Worcester Convention Center (\$19 million). The bonds are payable from monies credited to the Convention Center

Fund created by that legislation, which include certain hotel tax receipts from hotels in Boston, Cambridge, Springfield and Worcester, a surcharge on car rentals in Boston, a parking surcharge at all three facilities, a surcharge on sightseeing tours and cruises in Boston, and sales tax receipts from certain hotels and other retail establishments in Boston, Cambridge, and Springfield. The legislation requires a capital reserve fund to be maintained at a level equal to maximum annual debt service and provides that if the fund falls below its required balance, the 2.75% convention center financing fee in Boston is to be increased (though the overall hotel tax in Boston, including the fee, cannot exceed 14%). As of June 30, 2016, taxes within the Convention Center districts support approximately \$598 million of outstanding principal and approximately \$355 million of interest on debts related to these Convention Centers. Taxes collected in FY16 were approximately \$136 million, while debt service on the bonds was approximately \$55 million.

On July 29, 2014, the then Governor approved legislation authorizing the Commonwealth to issue an additional \$1.1 billion in special obligation bonds to finance an expansion of the convention center in Boston, to finance costs of issuance and fund a debt service reserve fund. Such bonds would be secured by and payable from the Convention Center Fund, with the State Treasurer and Secretary of Administration and Finance having the authority to pledge additional state hotel/motel room occupancy excises to the new bonds. The expansion project is currently on hold.

C. FEDERAL GRANT ANTICIPATION NOTES

All federal highway reimbursements are dedicated to funding the principal portion only of federal grant anticipation notes (GANs) issued in fiscal 2011, 2014, and 2015. During FY16, there were no new GANs issued under the Commonwealth's Accelerated Bridge Program. As of June 30, 2016, total principal remaining to be paid is approximately \$657 million. Maturities are from FY16 through FY27. Debt service paid during FY16 was approximately \$75 million.

The legislation authorizing such notes contains a statutory covenant that as long as any such GANs remain outstanding, the Commonwealth will deposit all federal highway reimbursements into the Grant Anticipation Note Trust Fund, to be released to the Commonwealth once all the debt service and reserve funding obligations of the trust agreement securing the GANs have been met. Principal amortization of the notes will continue through FY27. Such notes and the interest thereon are secured solely by the pledge of federal highway construction reimbursement payments and by a contingent pledge of certain motor fuels excises. In practice, the interest on such notes has been paid from Commonwealth appropriations.

D. THE BUILD AMERICA BOND PROGRAM

As part of the federal America Recovery and Reinvestment Act (ARRA) in 2009, municipal issuers were authorized to issue taxable bonds to fund new capital expenditures and receive an interest rate subsidy from the U.S. Treasury. As part of the temporary Build America Bond (BABs) program issuers, including the Commonwealth, issued taxable bonds in calendar years 2009 and 2010 in return for a subsidy from the federal government equal to 35% to 45% of the interest costs on the bonds, depending on whether the proceeds were used for projects in economically distressed areas. Between the GO bond program and the special obligation bond programs, the Commonwealth issued a total of \$2.791 billion in Build America Bonds and Recovery Zone Economic Development Bonds in six separate financings over the two year period of the program. All of the bonds were issued as "direct pay to issuer", meaning that the interest rate subsidies would be paid to the Commonwealth from the U.S. Treasury and not pledged to bondholders. As of June 30, 2016, the expected interest rate subsidy to be received through final maturity of all of the bonds issued as part of this program totaled \$761 million. The Commonwealth's repayment obligation to bondholders is based on the gross interest rate. From a budgetary perspective, the bonds' debt service is budgeted at the net-of-interest-rate subsidy rate.

Given the interest rate subsidy from the U.S. Treasury and given market conditions at the time of the Commonwealth's BABs sales, this program resulted in borrowings whose net interest costs will be significantly lower than the interest on traditional tax-exempt bonds. The BABs program expired on December 31, 2010.

E. INTEREST RATE SWAP AGREEMENTS – OBJECTIVES AND RISKS

Over the last twenty years, the Commonwealth has periodically entered into interest rate swap agreements for the sole purpose of hedging changes in the interest rates on a portion of its outstanding variable rate bonds, taking advantage of the fact that these bonds, combined with interest rate swaps, generally result in lower interest costs than fixed-rate bonds. Of the Commonwealth's variable-rate debt (including special obligation bonds) outstanding of approximately \$3.931 billion, approximately \$2.458 billion was hedged via floating-to-fixed interest rate swap agreements. Of this amount, \$2.316 billion are for G.O. bonds and the remainder on outstanding special obligation bonds.

Under the terms of these floating-to-fixed rate hedge agreements, counterparties to the hedge agreements are obligated to pay the Commonwealth an amount equal to or approximately equal to the variable-rate interest payment to bondholders of the related bonds or an interest payment based on a market index. In return, the Commonwealth is obligated to pay counterparties a stipulated fixed rate. The floating rate payments received by the Commonwealth from its swap counterparties are used to offset the variable rate payments paid to bondholders. Only the net difference in interest payments is actually exchanged with the swap counterparty. The net payments made or received on these hedge agreements are reported as part of interest expense on the Commonwealth's basic financial statements. In all cases, the Commonwealth remains responsible for making interest payments to the variable rate bondholders.

Objective of the Interest Rate Swap Agreements

In connection with the issuance of variable rate GO refunding bonds in 1998, 2001, 2003, 2005, 2006, and 2007, the Commonwealth entered into interest rate swap hedge agreements with certain counterparties to hedge against the volatility of the interest rates on certain bonds whose interest costs were floating and not fixed. Additional swap agreements were entered into to hedge this same volatility on certain special obligation bonds, including the Commonwealth's Series 2005 Special Obligation Tax Revenue (Gas Tax) Bonds and the Series 2004 Special Obligation Dedicated Tax Revenue (Convention Center) Bonds. In addition, a floating-to-fixed rate swap agreement was novated or transferred to the Commonwealth from the Route 3 North Transportation Improvements Association (secured by Commonwealth Contract Assistance) in November 2008 after the lease revenue bonds associated with that swap experienced remarketing failure. The swap was assigned to a portion of the Commonwealth's previously unhedged variable rate bonds that were outstanding.

The intended effect of these agreements is essentially to fix the Commonwealth's interest rate obligations with respect to its variable-rate bonds in order to hedge or mitigate the Commonwealth's exposure to changes in interest rates on these bonds. For example, during a period when interest rates rise, the Commonwealth would receive higher payments from swap counterparties that would be used to offset higher payments to bondholders of the outstanding variable rate bonds. During a period when interest rates decline, the reduction in interest payments to bondholders would offset the higher payments made to swap counterparties. But in both scenarios, the net obligation of the Commonwealth is essentially fixed through the life of the swap and bonds. This allows the Commonwealth to finance its capital budget using floating rate bonds, which, combined with interest rate hedges, are less costly than fixed-rate bonds while hedging the risk of rising interest rates on those bonds to provide long-term budgetary and cash flow certainty. As of June 30, 2016, all of the Commonwealth's interest rate swaps were floating-to-fixed rate agreements and were deemed effective hedges pursuant to GASB Statement No. 53.

Terms of the Interest Rate Swap Agreements

The variable rate bonds and their related swap agreements have final maturities ranging from 2016 to 2037. The swaps' total notional value of approximately \$2.458 billion effectively matches the par amount of the related variable-rate bonds.

Under the swap agreements, the Commonwealth pays the relevant counterparties fixed rates ranging from 3.672% to 5.250% and receives variable-rate payments equal to or approximately equal to the amount of variable rate payments the Commonwealth pays on the related variable-rate refunding bonds or a payment based on a market index. In some of the outstanding swap agreements, the Commonwealth receives an interest rate based on changes to Libor, the SIFMA index, or the CPI index. In other agreements, the floating payment received by the Commonwealth is precisely equal to the variable rate payment paid to bondholders based on an active remarketing of those bonds.

Credit Risk of the Interest Rate Swap Agreements

As of June 30, 2016, the Commonwealth is not exposed to credit risk because the swaps had a negative fair value. Should interest rates change and the fair value of the swaps become positive, the Commonwealth would be exposed to credit risk in the amount of the swaps fair value. All of the Commonwealth's counterparties are required to post collateral in certain circumstances, including credit rating downgrades. The Commonwealth is not required to post collateral in any of its existing swap agreements.

The chart below details the Commonwealth's outstanding swaps and related bond issuances (amounts in thousands except for percentages).

Associated Bond Issue	Notional Amounts Outstanding	Effective Date	Replacement Agreement Effective Date	Terms		Fair value at June 30			Final Termination Date	Counterparty	Counterparty Credit Rating Moody's/S&P/Fitch
				Fixed Rate Paid (Range)	Variable Rate Received	2016	2015	Change in Fair Value			
<i>General Obligation Bonds:</i>											
Series 1998A (refund) [1] Consolidated Loan of 2006, Series A Central Artery Loan of 2000, Series A Central Artery Loan of 2000, Series B	\$ 24,105	11/17/2008	11/17/2008	4.174%	60% 1-Month LIBOR + 25 basis points	\$ (219)	\$ (1,637)	\$ 1,418	9/1/2016	Wells Fargo Bank	Aa2/AA-/AA
Series 1998A (refunding)	10,185	9/17/1998	9/1/2016	4.174%	Cost of Funds	(95)	(751)	656	9/1/2016	Wells Fargo Bank	Aa2/AA-/AA
Series 2000A	97,092	8/16/2007	8/16/2007	3.942%	SIFMA - 3 basis points	(1,866)	(5,430)	3,564	8/1/2018	Merrill Lynch Cap Svcs	Baa1/NR/A
Series 2000A	49,308	8/16/2007	8/16/2007	3.942%	SIFMA - 3 basis points	(920)	(2,735)	1,815	8/1/2018	JP Morgan formerly Bear Stearns	Aa3/A+/AA-
Series 2001B & C	421,000	2/20/2001	2/20/2001	4.15%	Cost of Funds	(40,717)	(51,165)	10,448	1/1/2021	Morgan Stanley Capital Services	A1/A+uN/A
Series 2006B, Series 2000D	294,000	4/2/2009	4/2/2009	4.515%	67% 3-Month LIBOR	(100,369)	(81,690)	(18,679)	6/15/2033	Barclays Bank PLC	A2/A-/A
Series 2006C (refunding)	100,000	1/1/2007	1/1/2007	3.73% - 3.85%	CPI-based formula	(4,939)	(5,795)	856	11/1/2020	Wells Fargo Bank	Aa2/AA-/AA
Series 2007A	400,000	10/8/2008	10/8/2008	4.42%	67% 3-Month LIBOR + 0.57%	(13,588)	(25,376)	11,788	5/1/2037	Barclays Bank PLC	A2/A-/A
Series 2007A (refunding)[1]	31,665	10/8/2008	10/8/2008	3.936%	67% 3-Month LIBOR + 0.46%	(3,900)	(3,786)	(114)	11/1/2020	Wells Fargo Bank	Aa2/AA-/AA
Series 2007A (refunding)	414,130	10/8/2008	10/8/2008	4.083%	67% 3-Month LIBOR + 0.55%	(75,327)	(62,871)	(12,456)	11/1/2025	Bank of NY Mellon	Aa2/AA-/AA
Series 2013A, 2014E, 2015B & 2015C	475,000	3/15/2005	3/15/2005	3.672% - 4.004%	SIFMA	(93,099)	(79,637)	(13,462)	2/1/2028	Wells Fargo Bank	Aa2/AA-/AA
Subtotal	2,316,485					(335,039)	(320,873)	(14,166)			
<i>Special Obligation Dedicated Tax Revenue Bonds:</i>											
Series 2004 (Convention Ctr)	15,173	6/29/2004	6/29/2004	4.45% - 5.25%	CPI-based formula	(465)	(1,145)	680	1/1/2018	Goldman Sachs Cap Markets	A1/A/A+
Series 2004 (Convention Ctr)	15,174	6/29/2004	6/29/2004	4.45% - 5.25%	CPI-based formula	(458)	(1,145)	687	1/1/2018	JP Morgan formerly Bear Stearns	Aa3/A+/AA-
Series 2004 (Convention Ctr)	15,173	6/29/2004	6/29/2004	4.45% - 5.25%	CPI-based formula	(457)	(1,147)	690	1/1/2018	JPMorgan Chase Bank	Aa3/A+/AA-
Series 2005A (Gas Tax)	96,490	1/12/2005	1/12/2005	4.771% - 5.059%	CPI-based formula	(4,511)	(5,231)	720	6/1/2022	Merrill Lynch Cap Serv	Baa1/NR/A
Subtotal	142,010					(5,891)	(8,668)	2,777			
Total	\$ 2,458,495					\$ (340,930)	\$ (329,541)	\$ (11,389)			

Fair value of the Interest Rate Swap Agreements

The aggregate fair value balance of interest rate swaps at June 30, 2016 was negative \$341 million and is reflected on the statement of net position as a liability for derivative instruments which is offset by deferred outflows from derivative instruments. The fair values of the interest rate swaps are estimated using the zero-coupon method. This method calculates the future net settlement payments required by the swap assuming that the current forward rates implied by

the yield curve correctly anticipate future spot interest rates. These payments are then discounted using the spot rates implied by the current yield curve for hypothetical zero-coupon bonds due on the date of each future net settlement on the swaps. Because all of the interest rate swaps were deemed effective hedges, changes in fair value of the interest rate swaps during the fiscal year ended June 30, 2016 were recognized as deferred outflows resulting in no impact on the Statement of Activities.

If all the Commonwealth's swap agreements had been terminated as of the end of FY16, the Commonwealth would have been required to make a payment of this magnitude. Although the Commonwealth has the option of terminating its swap agreements at any time (and either make or receive any termination payment due), the Commonwealth's counterparties do not have such an option. Therefore, the Commonwealth would only have to make a payment of the amount estimated above if certain termination events occurred, as described below. Based on the terms and provisions of the swap agreements and the Commonwealth's current bond ratings, an involuntary termination of the swap agreements due to an event of the Commonwealth is remote. In the case of a voluntary termination due to an event of a counterparty, the Commonwealth would likely seek to maintain the existing hedge by replacing that counterparty with another. In FY16, one of the Commonwealth's swap counterparties, Deutsche Bank AG, was downgraded by the ratings agencies triggering a termination event impacting two swap agreements with a total notional amount outstanding of \$112 million. The Commonwealth replaced these two swaps with the same commercial terms via a novation to a higher rated counterparty, Wells Fargo Bank, NA.

Basis and Market-Access Risk of the Interest Rate Swap Agreements

Because the terms on most of the interest rate swap hedge agreements require the Commonwealth's counterparties to make variable rate payments equal or approximately equal to those the Commonwealth makes on the related variable rate bonds, the Commonwealth is not subject to significant basis risk as a result of the terms of these agreements. Under certain circumstances, such as a downgrade of the credit rating of the bonds being hedged or the enactment of tax-related legislation which causes the related bonds to trade differently, certain of the swap agreements provide that the Commonwealth's counterparties, may, at their option, pay a variable rate that is based on one or more market indices such as LIBOR or the SIFMA swap index. Under these circumstances, the Commonwealth would be subject to basis risk if these indices varied from the basis for the variable rates that were paid to bondholders that were determined for the Commonwealth's variable-rate demand bonds through the associated remarketing process. For certain other interest rate swap agreements, the variable rate on the swap is based on a market index that differs from the variable rate on the hedged bonds, which is generally remarketed or auction rate. The Commonwealth is subject to basis risk on these agreements.

A majority of the swap contracts have the same maturity dates and amortizations as the related bonds. For two of the swap agreements, the underlying bonds have maturity dates that come due before the termination date of the associated swaps. This applies to the 2006B and 2000D bonds being hedged by the \$294 million notional hedge agreement with Barclays and the 2013A, 2014E, 2015B and 2015C bonds being hedged by the \$475 million notional swap with Wells Fargo Bank. The Commonwealth's stated debt plan is to extend the underlying variable rate bonds to match the terms and amounts of the associated swaps. If the Commonwealth is unable to extend the underlying variable rate bonds or identify other variable rate bonds the swaps may hedge, the Commonwealth would be required to make net settlement payments on the swaps without the offsetting effects of changes in variable rate bond settlement payments.

Termination Risk of the Interest Rate Swap Agreements

The swap agreements are based on the International Swap Dealers Association (ISDA) Master Agreement, which includes standard termination events, such as failure to pay and bankruptcy. The swap agreements include termination events additional to those in the standard ISDA master agreement based on credit ratings. The swap agreements are not otherwise subject to termination except at the Commonwealth's option. The swap agreements require that the Commonwealth's counterparties maintain certain ratings levels. If they fail to maintain such ratings, the Commonwealth would have the option to terminate the related swap agreement and receive or pay a termination payment depending on the interest rates at the time. Similarly, the Commonwealth is required to maintain certain credit ratings under the agreements, generally 'BBB-' or above, well above the current credit rating of 'AA+' (based on long-term ratings assigned by Standard & Poor's). If the Commonwealth's rating fell below the defined threshold levels, the Commonwealth's counterparties would have the option to terminate the related swap agreements or for certain agreements choose to make variable rate payments based on a market index (instead of the actual bond rate) which

would subject the Commonwealth to basis risk, as previously described. If one or more of the swap agreements were terminated, then the related variable rate bonds would no longer be hedged and the Commonwealth would no longer be paying a synthetic fixed rate with respect to the bonds. In addition, if at the time of termination, the swap had a negative fair value, the Commonwealth would incur a loss and would be required to settle with the related counterparty or counterparties at the swaps' fair market values. However, to avoid a termination payment and to maintain the interest rate hedge, when the terminating event is an event of the counterparty, the Commonwealth would likely seek to replace counterparties to the swap agreement. Based on the terms and provisions of the swap agreements and the Commonwealth's current bond ratings, an involuntary termination of the swaps due to an event of the Commonwealth is remote.

F. OUTSTANDING SWAPPED DEBT

Security for Interest Rate Swap Agreements

Under legislation approved by the then Governor on August 11, 2008, scheduled, periodic payments to be made by the Commonwealth pursuant to swap agreements in existence on August 1, 2008 or entered into after such date shall constitute general obligations of the Commonwealth for which its full faith and credit is pledged.

Future bond interest payments are calculated using rates applicable to the scheduled payment nearest to June 30, 2016 for variable rate bonds. The net swap payments are calculated by subtracting the projected future variable rate interest payment per the swap agreement from the projected future fixed rate payment per the swap agreement. Projected future variable rate payments on the swap agreements are based on variable rates applicable to the scheduled payment nearest to June 30, 2016. The actual amount of variable rate interest paid to bondholders and net swap payments made to counterparties are affected by changes in variable interest rates, changes in inflation (CPI), as well as changes in the London Interbank Offered Rate (LIBOR) and the Securities Industry and Financial Markets Association (SIFMA) floating rate indices. Changes in the amounts paid to bondholders versus amounts paid to counterparties are largely offsetting.

Debt service requirements to maturity for variable-rate bonds hedged by interest rate swap agreements and projected future net settlement payments on interest rate swap agreements at June 30, 2016 are provided below (amounts in thousands):

Fiscal Year Ending June 30	Variable-Rate Bonds		Interest Rate Swaps, Net	Total
	Principal	Interest		
2017	\$ 343,700	\$ 10,838	\$ 62,682	\$ 417,220
2018	114,840	11,239	57,240	183,319
2019	205,290	10,916	54,072	270,278
2020	262,505	9,578	47,788	319,871
2021	239,295	7,203	38,962	285,460
2022-2026	780,595	32,560	158,741	971,896
2027-2031	305,325	12,741	60,020	378,086
2032-2036	177,840	4,888	18,454	201,182
2037	29,105	143	500	29,748
Total	<u>\$ 2,458,495</u>	<u>\$ 100,106</u>	<u>\$ 498,459</u>	<u>\$ 3,057,060</u>

Business - Type Activities – Swapped Debt

The business-type activities have various swaps. At June 30, 2016, the fair value liability of the outstanding interest rate swaps was \$92 million.

For financial reporting purposes, long-term debt is carried at its face value. Unamortized discounts and premiums are shown separately. For capital appreciation bonds, the outstanding amount represents total principal and accreted interest

to be repaid.

Component Unit – Swapped Debt

At June 30, 2016, the majority of interest rate swaps outstanding are held by MassDOT, which in aggregate have a negative fair value of approximately \$487 million. For complete details, see separate MassDOT financial statements.

G. OUTSTANDING LONG-TERM DEBT AND CHANGES IN LONG TERM DEBT

The amount of long-term debt authorized but unissued is measured in accordance with the statutory basis of accounting. Long-term debt principal outstanding and debt authorized and unissued at June 30, 2016 is as follows (amounts in thousands):

Purpose	Principal Outstanding	Fiscal Year Maturities	Authorized and Unissued
GANs	\$ 657,040	2017 - 2027	\$ —
Capital projects:			
General	11,392,917	2017 - 2045	11,721,051
Highway	11,395,842	2017 - 2045	14,412,315
Local aid	1,036,162	2017 - 2038	12,631
Other	597,630	2017 - 2034	—
Subtotal	24,422,551		26,145,997
Subtotal - governmental activities debt (exclusive of MSBA)	25,079,591		\$ 26,145,997
MSBA debt	5,624,275		
Governmental activities debt	<u>\$ 30,703,866</u>		

Interest rates on the Commonwealth's outstanding debt at the end of FY16 ranged from 0.5% to 6.6%.

Changes in long-term debt outstanding (excluding discount and premium) and bonds authorized - unissued for the year ended June 30, 2016 are as follows (amounts in thousands):

	Governmental Funds Debt - Primary Government	MSBA	Governmental Funds Bonded Debt	Authorized and Unissued
Balance July 1, 2015	\$ 23,826,301	\$ 5,714,410	29,540,711	\$ 29,071,339
Plus: Increases in bonds authorized	—	—	—	200,000
General and special obligation bonds:				
Proceeds, as defined as principal, premium				
less discount	4,697,103	1,354,686	6,051,789	(3,125,342)
Less: Net premium	(468,029)	(175,206)	(643,235)	—
Less: Principal on refunded bonds	(1,529,340)	(1,102,135)	(2,631,475)	—
Less: Bonds retired	(1,446,444)	(167,480)	(1,613,924)	—
Outstanding principal June 30, 2016	<u>\$ 25,079,591</u>	<u>\$ 5,624,275</u>	<u>\$ 30,703,866</u>	<u>\$ 26,145,997</u>

Business - Type Activities – Colleges and University Debt

Building authorities related to the University of Massachusetts and the state universities have issued bonds for construction of higher education facilities and equipment. Such bonds are guaranteed by the Commonwealth in an

aggregate amount not to exceed \$200 million. The bond agreements generally provide that revenues from student fees are pledged as collateral on the bonds and establish bond reserve funds, bond funds, and maintenance reserve funds. The University of Massachusetts and state universities have also entered into various loan agreements as participants in the MassDevelopment's ongoing capital asset program to finance construction projects and equipment.

At June 30, 2016, debt service requirements to maturity for principal and interest are as follows (amounts in thousands):

Fiscal Year Ended June 30	Governmental Activities					Business - Type Activities	
	Excluding MSBA Debt		MSBA Debt			Revenue Obligation	
	Principal	Interest *	Principal	Interest	Interest subsidies (1)	Principal	Interest
2017.....	\$ 1,575,071	\$ 1,109,371	\$ 112,925	\$ 275,381	\$ (22,550)	\$ 384,983	\$ 187,400
2018.....	1,491,299	1,054,023	118,665	269,635	(23,663)	145,239	179,221
2019.....	1,377,912	996,884	149,245	263,992	(24,213)	148,241	178,192
2020.....	1,302,809	939,005	140,335	256,479	(24,213)	154,034	172,471
2021.....	1,354,533	874,260	147,235	249,582	(24,213)	144,734	165,978
2022 - 2026	5,741,207	3,509,255	785,455	1,133,613	(121,065)	702,509	682,483
2027 - 2031	4,497,309	2,304,443	1,405,090	873,027	(70,650)	742,871	567,950
2032 - 2036	2,816,576	1,431,708	1,182,595	550,357	(33,780)	725,281	379,010
2037 - 2041	2,672,415	820,205	1,143,235	229,260	(8,950)	787,155	176,402
2042 -2046	2,250,460	226,735	439,495	33,290	—	488,066	37,790
2047 - 2051	—	—	—	—	—	15,169	998
Total long - term debt...	25,079,591	13,265,889	5,624,275	4,134,616	(353,297)	4,438,282	2,727,895
Less: current portion	(1,575,071)	(1,109,371)	(112,925)	(275,381)	22,550	(384,983)	(187,400)
Long - term debt.....	<u>\$ 23,504,520</u>	<u>\$ 12,156,518</u>	<u>\$ 5,511,350</u>	<u>\$ 3,859,235</u>	<u>\$ (330,747)</u>	<u>\$ 4,053,299</u>	<u>\$ 2,540,495</u>

*for all variable rate interest not hedged by swap agreements the budgeted interest rate is 5%

(1) FY16 and FY17 interest subsidies reflect announced sequestration reductions. There may be sequestration reductions in future years as well.

H. PRIOR DEFEASANCE

The Commonwealth defeased certain general and special obligation bonds by purchasing securities from the proceeds of advance refunding bonds or from surplus operating funds and placing them in irrevocable trusts to provide for all future debt service payments on the defeased bonds. The trust account assets and the liabilities for the defeased bonds are not included in the financial statements. As of June 30, 2016, approximately \$3.187 billion of bonds outstanding from advance refunding activities is considered defeased.

Business - Type Activities

The University of Massachusetts (UMass) and the Massachusetts State College Building Authority (MSCBA) defeased various bonds by issuing refunding bonds and placing the proceeds in irrevocable trusts to provide for all future debt service payments on the defeased bonds. The trust assets and the liabilities of the defeased bonds are not included in the business type activity financial statements. As of June 30, 2016, approximately \$192 million and \$267 million of bonds outstanding from advanced refunding transactions are considered defeased for UMass and MSCBA, respectively.

I. STATUTORY DEBT LIMIT

The Massachusetts General Laws, as recently amended, establishes limits on the amount of direct debt outstanding. By statutorily limiting the Commonwealth's ability to issue direct debt, a control is established on annual capital spending. The direct debt limit for FY16 was approximately \$20.749 billion. Outstanding debt subject to the limit at June 30, 2016 was approximately \$20.316 billion.

For purposes of determining compliance with the limit, outstanding direct debt is defined by statute, as amended on June 10, 2013 (effective January 1, 2013), as principal outstanding. It excludes BANs and associated discount or premium, if any, special obligation bonds, GANs, refunded bonds, certain refunding bonds, debt issued by counties, debt issued in conjunction with the MBTA Forward Funding, certain Central Artery/Tunnel debt, and debt issued for the SMART program. The amounts excluded from the debt limit are as follows (amounts in thousands):

	Principal Outstanding
Statutory debt June 30, 2016	\$ 25,079,591
Less amounts excluded:	
Central artery project bonds	(1,150,296)
Accelerated bridge program	(2,192,930)
MBTA forward funding	(207)
SMART bonds	(652,197)
Convention center bonds	(597,630)
Special obligation gas tax bonds	(170,735)
Outstanding direct debt	<u>\$ 20,315,596</u>

J. ADMINISTRATION DEBT LIMIT

During FY09, the Administration announced a policy that sets the annual borrowing limit at a level designed to keep debt service at a maximum of 8% of budgeted revenues. For this purpose, debt service includes principal and interest payments on all general obligation debt, special obligation gas tax debt, interest on federal grant anticipation notes, general obligation contract assistance payment obligations, and budgetary contract assistance payment obligations on certain capital lease financings. Debt of the Massachusetts School Building Authority and of the Massachusetts Bay Transportation Authority that is supported by the portion of the sales tax legally dedicated to such entities is not included for purposes of this analysis, as the Commonwealth is not liable for such debt; similarly, the sales tax revenues legally dedicated to such entities are not included in the budgeted revenue projections.

In addition to keeping debt service at a maximum of 8% of budgeted revenues, the debt management policy limits future annual growth in the bond cap to not more than \$125 million through fiscal 2016. This additional constraint is designed to ensure that projected growth in the bond cap will be held to stable and sustainable levels.

The current Administration intends to treat all debt and debt-like obligations of the Commonwealth as subject to the bond cap for purposes of developing the annual capital budget, except in limited circumstances when there is a sound policy justification for not including a particular debt issue. Debt may be excluded from the bond cap, for example, where there is a new, dedicated source of project-related revenues supporting the payment of debt service on such debt. In such cases, the dedicated revenue would also be excluded from projected budgeted revenues for purposes of determining the bond cap as described above.

The following table shows the annual bond cap, the resulting total annual debt service payment obligations and debt service as a percentage of budgeted revenues, (amounts in thousands):

	Fiscal 2016
Bond cap as approved by the Governor	\$ 2,125,000
Total annual debt service obligations	1,444,516
Budgeted fund revenues	40,838,450
Debt service as % of budgeted revenues	3.5%

K. CHANGES IN LONG-TERM LIABILITIES

The following table summarizes changes in long-term liabilities for both governmental activities and business-type activities (amounts in thousands):

Changes in Long Term Liabilities - Governmental Activities:

Description	Beginning Balance	Additions	Deletions	Ending Balance	Due Within One Year
Other long-term obligations:					
Compensated absences	\$ 577,316	\$ 603,490	\$ (577,316)	\$ 603,490	\$ 409,398
Claims and judgments	11,819	16,269	(16,677)	11,411	11,411
Prizes payable	1,243,000	172,945	(221,000)	1,194,945	—
School construction grants payable	1,081,019	428,840	(629,322)	880,537	347,006
Post employment benefit obligations	5,605,000	1,475,000	(614,000)	6,466,000	—
Environmental remediation liability	207,979	330,935	(8,065)	530,849	5,421
Lottery instant grand prizes	31,492	—	(14,599)	16,893	—
Workers' compensation	274,429	54,250	(57,959)	270,720	38,710
Arbitrage rebate - MSBA	13,603	426	(11,842)	2,187	—
Group insurance claims	107,949	1,630,534	(1,627,558)	110,925	108,915
Cost of living adjustment	186,500	—	(25,235)	161,265	—
Net pension liability	24,531,950	10,014,136	(1,690,371)	32,855,715	—
Total other long-term obligations	33,872,056	14,726,825	(5,493,944)	43,104,937	920,861
Liability for derivative instruments	329,833	340,930	(329,833)	340,930	—
Bonded Debt:					
Bonds and notes payable - non MSBA	23,826,301	4,229,074	(2,975,784)	25,079,591	1,575,071
Unamortized bond and note premiums - non MSBA	964,608	468,028	(89,286)	1,343,350	67,029
MSBA Bonds and notes payable excluding premium	5,714,410	1,179,480	(1,269,615)	5,624,275	112,925
Unamortized bond and note premiums - MSBA	486,984	144,709	(57,437)	574,256	46,552
MSBA other liabilities	435,000	2,834,000	(2,819,000)	450,000	450,000
Other financing arrangements:					
Capital leases	42,928	30,706	(32,332)	41,302	8,795
Total bonded debt and other financing arrangements	31,470,231	8,885,997	(7,243,454)	33,112,774	2,260,372
Long-term liabilities, governmental activities	\$ 65,672,120	\$ 23,953,752	\$ (13,067,231)	\$ 76,558,641	\$ 3,181,233

Changes in Major Long Term Liabilities - Business-Type Activities:

Description	Beginning Balance	Additions	Deletions	Ending Balance	Due Within One Year
Other long-term obligations:					
Compensated absences	\$ 213,000	\$ 35,103	\$ (27,722)	\$ 220,381	\$ 149,512
Environmental remediation liability	11	—	(11)	—	—
Net pension liability	403,393	356,977	(41,410)	718,960	—
Total other long-term obligations	616,404	392,080	(69,143)	939,341	149,512
Liability for derivative instruments	72,517	19,874	—	92,391	—
Bonded Debt:					
Bonds and notes payable, including MSCBA	4,553,105	241,584	(356,407)	4,438,282	384,983
Other financing arrangements:					
Capital leases	9,895	2,789	(2,797)	9,887	2,797
Total bonded debt and other financing arrangements	4,563,000	244,373	(359,204)	4,448,169	387,780
Long-term liabilities, business - type activities	\$ 5,251,921	\$ 656,327	\$ (428,347)	\$ 5,479,901	\$ 537,292

Governmental long-term liabilities, other than debt, are typically liquidated by using General Fund resources.

Discretely Presented Component Units – The change in bonds and notes outstanding at June 30, 2016, net of unamortized discounts and premiums, compensated absences and net pension liability are as follows (amounts in thousands):

			July 1, 2015 Beginning Balance	Increases	Decreases	June 30, 2016 Ending Balance	Due Within One Year	Long Term
	Interest Rates	Maturities						
Major component units:								
MassDOT	0.00 - 7.000%	2017 - 2046	\$ 7,734,563	\$ 408,447	\$ (434,548)	\$ 7,708,462	\$ 462,489	\$ 7,245,973
MCWT	1.00 - 6.375%	2017 - 2043	3,332,352	245,140	(249,290)	3,328,202	225,895	3,102,307
Nonmajor component units ..	1.00 - 6.500%	2017 - 2038	557,620	102,550	(31,919)	628,251	28,914	599,337
Total bonds and notes payable			11,624,535	756,137	(715,757)	11,664,915	717,298	10,947,617
Compensated absences, net			48,337	4,195	(3,832)	48,700	28,074	20,626
Net pension liability			1,399,888	530,440	(146,073)	1,784,255	—	1,784,255
Total long term liabilities			<u>\$ 13,072,760</u>	<u>\$ 1,290,772</u>	<u>\$ (865,662)</u>	<u>\$ 13,497,870</u>	<u>\$ 745,372</u>	<u>\$ 12,752,498</u>

The net pension liability of the discretely presented component units of \$1.784 billion includes \$1.169 billion related to the MBTA and RTAs and \$615 million related to entities that participate in SERS. See the MassDOT financial statements for further information regarding the MBTA and RTA pension plans and see pages 109-116 of this report for the SERS pension disclosures.

Further information on debt is found in the notes to the basic financial statements for the various component units.

8. INDIVIDUAL FUND DEFICITS

Certain funds within the Governmental Fund Type had fund deficits at June 30, 2016. None of these funds were in deficit due to finance-related contractual provisions and all were allowed to be in deficit by General Law. The amounts are as follows (amounts in thousands):

Other Governmental Funds	Amount
Other Special Revenue Funds:	
Government land bank fund	\$ (35,033)
Community preservation trust fund	(5,057)
Health information technology trust fund	(3,962)
General capital projects fund	(212,888)
Highway capital projects fund	(275,432)
Other capital project funds:	
Federal highway construction program capital projects fund	(16,719)

9. RETIREMENT AND OTHER POST EMPLOYMENT BENEFITS

The Commonwealth is statutorily responsible for the pension benefits for Commonwealth employees (members of the State Employees' Retirement System) and for teachers of the cities, towns, regional school districts throughout the Commonwealth and Quincy College (members of the Teachers' Retirement System). The members of the retirement systems do not participate in the Social Security System.

A. PLAN DESCRIPTIONS

Plan administration

The Massachusetts *State Employees' Retirement System* (SERS) is a public employee retirement system (PERS), that administers a cost-sharing multiple employer defined benefit plan covering substantially all employees of the Commonwealth and certain employees of the independent authorities and agencies, including the state police officers at the Massachusetts Port Authority. The former Massachusetts Turnpike Authority (MTA) employees and retirees became members of SERS upon the creation of MassDOT. Other employees who transferred to MassDOT have been, and remain, members of SERS. The assets and liabilities of the former MTA have been transferred to SERS. SERS is administered by the Massachusetts State Retirement Board (the SRB) and is part of the reporting entity and does not issue a stand-alone audited financial report.

Management of the SERS is vested in the SRB, which consists of five members—two elected by current and active SERS members, one by the remaining members of the SRB, one who is appointed by the State Treasurer, and the State Treasurer, who serves as ex-officio and is the Chairman of the SRB.

Benefits are recorded when due and payable.

The Massachusetts *Teachers' Retirement System* (MTRS) is a PERS that administers a cost-sharing multiple employer defined benefit plan managed by the Commonwealth on behalf of municipal teachers and municipal teacher retirees. The Commonwealth is a non-employer contributor and is responsible for all contributions and future benefit requirements of the MTRS. The MTRS covers certified teachers in cities (except Boston), towns, regional school districts and Quincy College. The MTRS is administered by the Massachusetts Teachers' Retirement Board (the MTRB) and is part of the reporting entity and does not issue a stand-alone audited financial report.

Management of the MTRS is vested in the MTRB, which consists of seven members—two elected by the MTRS members, one who is chosen by the six other MTRB members, the State Treasurer (or their designee), the State Auditor (or their designee), a member appointed by the Governor, and the Commissioner of Education (or their designee), who serves as ex-officio and is the Chairman of the MTRB.

The *Boston Retirement System* (BRS) is a PERS that administers a cost-sharing multiple employer defined benefit plan managed by the City of Boston Retirement Board covering all City of Boston departments and agencies as well as the School Department, the Boston Planning and Development Agency, the Boston Housing Authority, the Public Health Commission and the Boston Water and Sewer Commission. The BRS is not administered by the Commonwealth and is not part of the reporting entity of the Commonwealth.

Chapter 112 of the Acts of 2010, signed on May 22, 2010, changed the methodology for the Commonwealth funding of Boston teachers in the BRS (hereafter referred to as BRS-Teachers) and created a special funding situation for the Commonwealth. The cost of pension benefits of the other participants of the BRS is the responsibility of the City of Boston. Chapter 112 clarified that the Commonwealth is responsible for all contributions and future benefit requirements for BRS-Teachers. The net pension liability related to the BRS-Teachers is included in the Commonwealth's net pension liability in this report.

Management of the BRS is vested with in a Board of Trustees, which consists of five members—two elected by the active and retired members of the system, the City Auditor as ex-officio, one member appointed by the Mayor of Boston, and one member who is elected by the other four members. The BRS issues a stand-alone audited financial report. For a complete copy of BRS's separately issued financial statements, please contact the City of Boston Retirement Board at (617) 635-4305, or you may download this report at <http://www.cityofboston.gov/retirement/investment.asp>.

Plan membership. As of January 1, 2016, for SERS and MTRS, and as of December 31, 2014, for the BRS, the dates of the most recent valuations, plan membership consisted of the following:

	SERS	MTRS	BRS
Retirees and beneficiaries currently receiving benefits	61,377	63,744	14,341
Terminated employees entitled to benefits but not yet receiving them.....	4,350	—	808
Inactive members entitled to a return of contributions	—	—	7,983
Subtotal	65,727	63,744	23,132
Current members.....	88,081	91,059	20,278
Total.....	<u>153,808</u>	<u>154,803</u>	<u>43,410</u>

Benefits provided. SERS, MTRS and BRS provide retirement, disability, survivor, and death benefits to members and their beneficiaries. Massachusetts General Laws (MGL) establishes uniform benefit and contribution requirements for all contributory PERS. These requirements provide for superannuation retirement allowance benefits up to a maximum of 80% of a member's highest three-year average annual rate of regular compensation. For employees hired after April 1, 2012, retirement allowances are calculated on the basis of the last five years or any five consecutive years, whichever is greater in terms of compensation. Benefit payments are based upon a member's age, length of creditable service, and group creditable service, and group classification. The authority for amending these provisions rests with the Legislature.

Members become vested after ten years of creditable service. A superannuation retirement allowance may be received upon the completion of twenty years of service or upon reaching the age of 55 with ten years of service. Normal retirement for most employees occurs at age 65; for certain hazardous duty and public safety positions, normal retirement is at age 55. Most employees who joined the system after April 1, 2012 cannot retire and receive benefits prior to age 60.

The retirement systems' funding policies have been established by Chapter 32 of the MGL. The Legislature has the authority to amend these policies. The annuity portion of the SERS and TRS retirement allowance is funded by employees, who contribute a percentage of their regular compensation. Costs of administering the plan are funded out of plan assets.

Member contributions for SERS, MTRS and BRS vary depending on the most recent date of membership:

Hire Date	% of Compensation
Prior to 1975.....	5% of regular compensation
1975 - 1983	7% of regular compensation
1984 to 6/30/1996	8% of regular compensation
7/1/1996 to present.....	9% of regular compensation except for State Police, which is 12% of regular compensation
7/1/2001 to present.....	11% of regular compensation (for teachers hired after 7/1/01 and those accepting provisions of Chapter 114 of the Acts of 2000)
1979 to present.....	An additional 2% of regular compensation in excess of \$30,000

B. INVESTMENTS

Investment Policy. Investment of assets in the SERS and MTRS are with the Pension Reserves Investment Trust (PRIT) Fund, which is managed by the Pension Reserves Investment Management (PRIM) Board. The Massachusetts legislature enacted Section 17 of Chapter 112 of the Acts of 2010, which requires the SBRS to invest all assets, current and future, related to BRS-Teachers in the PRIT pooled fund. The PRIM Board seeks to maximize the total return on investments within acceptable levels of risk for a public pension fund. The PRIM Board recognizes that over the long

term, asset allocation is the single greatest contributor of return and risk to the PRIT Fund. The investment policy statement adopted by the PRIM Board requires a comprehensive review of the PRIM Board's asset allocation plan and its underlying assumptions at reasonable intervals of not more than three to five years. In addition, the investment policy statement requires that the PRIM Board conduct an annual evaluation of the PRIT Fund's asset allocation. The PRIM Board's last comprehensive review of the PRIT Fund asset allocation was conducted during fiscal 2014. See [Note 1 \(D\)](#) for a description of the fair value policies of PRIT's investments.

The following was the PRIT Fund asset allocation as of June 30, 2016 (SERS and MTRS) and December 31, 2015 (BRS-Teachers):

Asset Class	Target Allocation		
	SERS	MTRS	BRS-Teachers
Global Equity	40.0%	40.0%	40.0%
Core Fixed Income	13.0%	13.0%	13.0%
Private Equity	10.0%	10.0%	10.0%
Real Estate	10.0%	10.0%	10.0%
Value Added Fixed Income	10.0%	10.0%	10.0%
Hedge Funds	9.0%	9.0%	9.0%
Portfolio Completion Strategies	4.0%	4.0%	4.0%
Timber/Natural Resources	4.0%	4.0%	4.0%
Total	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>

The annual money-weighted return on pension plan investments calculated as the internal rate of return on pension plan investments net of pension plan expenses for fiscal 2016 was 1.79% for SERS, 1.78% for MTRS, and for the year ended December 31, 2015, 0.15% for BRS. A money-weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested.

C. NET PENSION LIABILITY OF THE SYSTEMS REQUIRED BY GASB 67

The components of the net pension liability for SERS and MTRS at June 30, 2016 are as follows (amounts in thousands):

	SERS	MTRS
Total pension liability	\$ 37,760,000	\$ 47,300,000
Plan fiduciary net position	(23,971,156)	(24,942,072)
Net pension liability	<u>\$ 13,788,844</u>	<u>\$ 22,357,928</u>
Fiduciary net position as a percentage of the total pension liability	63.5%	52.7%

Additional information regarding changes in the net pension liability can be found in the Required Supplementary Information section of these financial statements.

Actuarial assumptions. The total pension liability, for both SERS and MTRS, was determined by an actuarial valuation as of January 1, 2016 rolled forward to June 30, 2016, using the following actuarial assumptions:

1. The actuarial assumptions included: (a) 7.50% investment rate of return, a decrease of 0.25% from the rate used in the January 1, 2015 actuarial valuation; (b) 3.5% interest rate credited to the annuity savings fund; and (c) 3.0% cost of living increase on the first \$13,000 per year.

2. Salary increases are based on analyses of past experience but range from 3.5% to 9.0% depending on group and length of service.
3. Change in benefit terms:
 - a. SERS:
 - Chapter 176 of the Acts of 2011 created a one time election for eligible members of the Optional Retirement Plan (ORP) to transfer to the State Employee's Retirement System (SERS) and purchase service for the period while members of the ORP. As a result, the total pension liability of SERS has increased by approximately \$400 million as of June 30, 2016.
4. Experience studies were performed as follows:
 - a. SERS:
 - Dated February 27, 2014 and encompasses the period January 2006 to January 2012.
 - b. MTRS:
 - Dated July 21, 2014 and encompasses the period January 2006 to January 2012.
5. Mortality rates were as follows:
 - a. SERS:
 - Pre-retirement mortality reflects RP-2000 Employees table projected generationally with Scale BB and a base year 2009 (gender distinct).
 - Post-retirement mortality reflects RP-2000 Healthy Annuitant table projected generationally with Scale BB and a base year 2009 (gender distinct).
 - For disabled members, the mortality rate is assumed to be in accordance with the RP-2000 Healthy Annuitant Table projected generationally with Scale BB and a base year of 2015 (gender distinct).
 - b. MTRS:
 - Pre-retirement mortality reflects RP-2014 Employees table projected generationally with Scale BB and a base year of 2014 (gender distinct).
 - Post-retirement mortality reflects RP-2014 Healthy Annuitant table projected generationally with Scale BB and a base year 2009 (gender distinct).
 - For disabled members, the mortality rate is assumed to be in accordance with RP-2014 Healthy Annuitant Table projected generationally with Scale BB and a base year of 2014 set forward 4 years.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate arithmetic expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These assumptions are converted into nominal assumptions by adding inflation, then combined by weighting them by the target asset allocation percentages. Finally, the arithmetic portfolio expected return is converted into a geometric expected return using assumed asset class standard deviations and correlations. Best estimates of geometric rates of return for each major asset class included in the PRIT Fund's target asset allocation as of June 30, 2016 (see the discussion of the pension plan's investment policy) are summarized in the following table:

Asset Class	Long-term Expected Real Rate of Return	
	SERS	MTRS
Private Equity.....	8.7%	8.7%
Global Equity.....	6.9%	6.9%
Timberland/Natural Resources	5.4%	5.4%
Value Added Fixed Income.....	4.8%	4.8%
Real Estate	4.6%	4.6%
Hedge Funds	4.0%	4.0%
Portfolio Completion Strategies.....	3.6%	3.6%
Core Fixed Income.....	1.6%	1.6%

Discount rate. The discount rate used to measure the pension liability for SERS and MTRS was 7.50%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rates and the Commonwealth's contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rates. Based on those assumptions, the SERS and MTRS net positions were projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability for SERS and MTRS.

Sensitivity of the net pension liability to changes in the discount rate. The following presents the net pension liability of SERS and MTRS, calculated using the discount rate of 7.50%, as well as what the SERS and MTRS net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.50%) or 1-percentage-point higher (8.50%) than the current rate (amounts in thousands):

	1% Decrease (6.50%)	Current Discount Rate (7.50%)	1% Increase (8.50%)
SERS net pension liability.....	\$ 17,969,000	\$ 13,788,844	\$ 10,246,000
MTRS net pension liability	27,464,000	22,357,928	18,022,000

D. NET PENSION LIABILITY OF THE SYSTEMS REQUIRED BY GASB 68

Contributions

Chapter 32 of the General Laws directs the Secretary of Administration and Finance to prepare a funding schedule to meet actuarially determined requirements, and to update this funding schedule every three years on the basis of new actuarial valuation reports prepared under the Secretary's direction. Any such schedule is subject to legislative approval. If a schedule is not so approved, payments are to be made in accordance with the most recently approved schedule. Under the current schedule adopted in January 2014, the amortization payments are designed to eliminate the unfunded liability by FY36 according to the following schedule: annual appropriation increases of 10% per year until FY17 decreasing to 7% thereafter until FY36 (four years before the statutory deadline of FY40). The funding schedule as published follows an acceptable actuarial funding methodology to compute normal cost and the unfunded accrued actuarial liability.

The policy for post-retirement benefit increases for all retirees of the SERS, MTRS, and for those participants who serve in the City of Boston's School Department in a teaching capacity is subject to legislative approval.

Contributions by the Commonwealth of \$1.642 billion were made during to SERS and MTRS for the measurement

period ending June 30, 2015. In addition, approximately \$120 million representing the nonemployer contributions to BRS-Teachers were made for the measurement date ending December 31, 2015.

Proportionate Share of Net Pension Liability

As of the respective measurement dates below, the net pension liability for SERS, MTRS and BRS were \$11.383 billion, \$20.490 billion, and \$4.410 billion, respectively. The net pension liabilities for SERS and MTRS were determined by an actuarial valuation as of January 1, 2015 and rolled forward to June 30, 2015. The BRS net pension liability was determined by an actuarial valuation as of January 1, 2014 and rolled forward to December 31, 2015. The SERS, MTRS and BRS actuarial valuations were rolled forward to their respective measurement dates using generally accepted actuarial procedures.

The Commonwealth (the primary government) reported the following net pension liabilities for its proportionate share of the SERS, MTRS and BRS-Teachers net pension liabilities (amounts in thousands):

System	Measurement Date	Proportionate Share	Net Pension Liability
State Employees' Retirement System	June 30, 2015	93.8%	\$ 10,682,765
Massachusetts Teachers' Retirement System.....	June 30, 2015	100.0%	20,489,643
Boston Retirement System - Teachers.....	December 31, 2015	54.5%	2,402,267
Total net pension liability			<u>\$ 33,574,675</u>

Certain of the Commonwealth's discretely presented component units (the Massachusetts Convention Center Authority [MCCA] and the Massachusetts Department of Transportation [MassDOT]) participate in SERS. As of the measurement date the proportionate share of the SERS net pension liability for the discretely presented component units was as follows (amounts in thousands):

System	Measurement Date	Proportionate Share	Net Pension Liability
State Employees' Retirement System	June 30, 2015	5.4%	<u>\$ 615,323</u>

Deferred Outflows and Inflows of Resources

As of the measurement dates, the Commonwealth (primary government) recognized pension expense of approximately \$3.101 billion and the discretely presented component units recognized approximately \$72 million of pension expense. The following details the components of deferred outflows of resources and deferred inflows of resources related to pension expense (amounts in thousands):

	Primary Government		Discretely Presented Component Units	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Change of assumptions	\$ 4,713,703	\$ —	\$ 108,179	\$ 5,410
Changes in proportion.....	91,887	100,505	11,037	254
Net difference between projected and actual earnings on pension investments	89,751	641,817	135,711	19,867
Differences between expected and actual experience..	339,485	—	70,700	4,378
Payments made after the measurement date	1,770,406	—	65,143	—
Totals.....	<u>\$ 7,005,232</u>	<u>\$ 742,322</u>	<u>\$ 390,770</u>	<u>\$ 29,909</u>

The statements reflect changes in proportion due to internal allocations between the governmental and business type activities, which are eliminated for footnote presentation.

The \$1.770 billion and \$65 million reported as deferred outflows of resources in the primary government and the discretely presented component units, respectively, are the contributions made subsequent to the measurement date and will be recognized as a reduction of the net pension liability in the next fiscal year. Other amounts reported above as deferred outflows of resources and deferred inflows of resource related to pension will be recognized in pension expense as follows (amounts in thousands):

Fiscal Year Ending June 30	Primary Government	Discretely Presented Component Units
2017.....	\$ 716,695	\$ 70,794
2018.....	716,695	70,794
2019.....	716,695	70,305
2020.....	1,462,692	67,898
2021.....	775,100	16,538
Thereafter	104,627	(611)
Totals.....	<u>\$ 4,492,504</u>	<u>\$ 295,718</u>

The SERS and MTRS total pension liabilities were based on an actuarial valuation as of January 1, 2015 rolled forward to June 30, 2015, using the following actuarial assumptions:

1. The actuarial assumptions included (a) 7.5% investment rate of return, (b) 3.5% interest rate credited to the annuity savings fund and (c) 3.0% cost of living increase on the first \$13,000 per year.
2. Salary increases are based on analyses of past experience but range from 3.5% to 9.0% depending on group and length of service.
3. In May, 2015 Chapter 19 of the Acts of 2015 created an Early Retirement Incentive Program (ERIP) for certain members of SERS who upon election of the ERIP retired effective June 30, 2015. As a result, the total pension liability of SERS increased by approximately \$230 million as of June 30, 2015.
4. Mortality rates were as follows:

SERS:

- Pre-retirement - reflects RP-2000 Employees Table projected generationally with Scale BB and a base year of 2009 (gender distinct)
- Post-retirement - reflects Healthy Annuitant Table projected generationally with Scale BB and a base year of 2009 (gender distinct)
- Disability - the morality rate is assumed to be in accordance with the RP-2000 Healthy Annuitant Table projected generationally with Scale BB and a base year of 2015 (gender distinct)

MTRS:

- Pre-retirement - reflects RP-2014 Employees Table projected generationally with Scale BB and a base year of 2014 (gender distinct)
- Post-retirement - reflects RP-2014 Healthy Annuitant Table projected generationally with Scale B and a base year of 2014 (gender distinct)
- Disability - assumed to be in accordance with the RP-2014 Healthy Annuitant Table projected generationally with Scale BB and a base year 2014 set forward 4 years

The BRS-Teachers total pension liability was based on an actuarial valuation as of January 1, 2014 rolled forward to December 31, 2015, using the following actuarial assumptions:

1. The actuarial assumptions included (a) 7.5% investment rate of return, (b) 4.5% interest rate credited to the annuity savings fund and (c) 3.0% cost of living increase on the first \$13,000 per year.
2. Salary increases range from 4.0% to 7.5% depending on length of service.
3. Mortality rates were as follows:
 - Healthy - reflects RP-2014 Employee and Healthy Annuitant Mortality Tables projected generationally using Scale BB2D from 2014.
 - Disabled - reflects RP-2014 Healthy Annuitant Mortality Table set forward four years projected generationally using Scale BB2D from 2014.

Investment Policy

Investment of assets in the SERS, MTRS and BRS-Teachers are with the Pension Reserves Investment Trust (PRIT) Fund, which is managed by the Pension Reserves Investment Management (PRIM) Board. The PRIM Board seeks to maximize the total return on investments within acceptable levels of risk for a public pension fund. The PRIM Board recognizes that over the long term, asset allocation is the single greatest contributor of return and risk to the PRIT Fund. The investment policy statement adopted by the PRIM Board requires a comprehensive review of the PRIM Board's asset allocation plan and its underlying assumptions at reasonable intervals of not more than three to five years. In addition, the investment policy statement requires that the PRIM Board conduct an annual evaluation of the PRIT Fund's asset allocation. The PRIM Board's last comprehensive review of the PRIT Fund asset allocation was conducted during fiscal 2014. See [Note 1 \(D\)](#) for a description of the fair value policies of PRIT's investments.

The following was the PRIT Fund asset allocation as of the measurement date:

Asset Class	Target Allocation		
	SERS	MTRS	SBRS-Teachers
Global Equity	40.0%	40.0%	40.0%
Core Fixed Income.....	13.0%	13.0%	13.0%
Private Equity.....	10.0%	10.0%	10.0%
Real Estate	10.0%	10.0%	10.0%
Value Added Fixed Income.....	10.0%	10.0%	10.0%
Hedge Funds	9.0%	9.0%	9.0%
Portfolio Completion Strategies.....	4.0%	4.0%	4.0%
Timber/Natural Resources	4.0%	4.0%	4.0%
Total	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>

The annual money-weighted return on pension plan investments calculated as the internal rate of return on pension plan investments net of pension plan expenses as of the measurement date was 3.4% for SERS, 3.4% for MTRS and 5.7% for BRS-Teachers. A money-weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested.

Sensitivity of the proportionate share of the net pension liability to changes in the discount rate. The following presents the net pension liability of SERS, MTRS and BRS-Teachers calculated using the discount rate of 7.5%, as well as what the SERS and MTRS net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.5%) or 1-percentage-point higher (8.5%) than the current rate (amounts in thousands):

	1% Decrease (6.5%)	Current Discount Rate (7.5%)	1% Increase (8.5%)
SERS net pension liability.....	\$ 14,513,674	\$ 10,682,765	\$ 7,367,990
MTRS net pension liability	25,449,000	20,489,643	16,221,000
BRS-Teachers net pension liability.....	3,022,382	2,402,267	1,883,470

E. STATEMENTS OF NET POSITION AND CHANGES IN NET POSITION

The following table displays the Statement of Net Position and the Statement of Changes in Net Position for the SERS, the MTRS and the SRBT as of June 30, 2016, (amounts in thousands):

	Pension Trust Funds		OPEB Trust Fund	
	State Employees' PERS	Teachers' PERS	State Retiree Benefits	Total
ASSETS				
Cash and cash equivalents	\$ 77,226	\$ 84,500	\$ 78,106	\$ 239,832
Net investment in PRIT at fair value	23,661,539	24,766,990	787,942	49,216,471
Other receivables	115,772	87,479	—	203,251
Other assets	118,413	11,218	—	129,631
Total assets	23,972,950	24,950,187	866,048	49,789,185
LIABILITIES				
Accounts payable	1,794	8,115	5	9,914
Net position available for post-employment benefits	\$ 23,971,156	\$ 24,942,072	\$ 866,043	\$ 49,779,271
	State Employees' PERS	Teachers' PERS	State Retiree Benefits	Total
ADDITIONS				
Contributions:				
Employer contributions - Commonwealth	\$ 660,818	\$ —	\$ 502,285	\$ 1,163,103
Non-employer contributions - Commonwealth	21,830	1,124,583	—	1,146,413
Employer and non-employer contributions - other	16,642	—	—	16,642
Employee contributions	591,948	699,422	—	1,291,370
ERIP funding contribution - Commonwealth	29,093	—	—	29,093
Boston teachers' contributions from Commonwealth	—	120,434	—	120,434
Other additions	397,077	82,362	1,313	480,752
Total contributions	1,717,408	2,026,801	503,598	4,247,807
Net investment gain/(loss):				
Investment gain/(loss)	545,612	570,073	18,686	1,134,371
Less: investment expense	(122,674)	(128,710)	(4,240)	(255,624)
Net investment gain/(loss)	422,938	441,363	14,446	878,747
Total additions	2,140,346	2,468,164	518,044	5,126,554
DEDUCTIONS				
Administration	20,624	24,220	161	45,005
Retirement benefits and refunds	2,107,327	2,791,011	426,853	5,325,191
Payments to State Boston Retirement System	—	120,434	—	120,434
Other deductions	83,824	19,495	—	103,319
Total deductions	2,211,775	2,955,160	427,014	5,593,949
Net increase/(decrease)	(71,429)	(486,996)	91,030	(467,395)
Net position available for post-employment benefits at beginning of year	24,042,585	25,429,068	775,013	50,246,666
Net position available for post-employment benefits at end of year	\$ 23,971,156	\$ 24,942,072	\$ 866,043	\$ 49,779,271

F. RESERVES

Chapter 32 of the MGL establishes certain legally required reserve accounts for both SERS and MTRS. These reserves are used to account for the accumulation of resources according to purpose for which they are received, acquired or held. The reserve accounts can only be modified or changed by legislation.

The balances of legally required reserves at June 30, 2016 were as follows (amounts in thousands):

	SERS	MTRS	Purpose
Annuity Savings Fund	\$ 5,879,908	\$ 7,160,339	Active members' contribution balance
Annuity Reserve Fund	1,927,360	2,394,870	Retired members' contribution account
Special Military Service Fund ...	40	237	Members' contribution account while on military leave
Pension Reserve Fund	16,163,848	15,386,626	Amounts appropriated to fund future retirement benefits
Total	<u>\$ 23,971,156</u>	<u>\$ 24,942,072</u>	

G. COMMONWEALTH POST EMPLOYMENT OBLIGATIONS OTHER THAN PENSIONS

In addition to providing pension benefits, under Chapter 32A of the Massachusetts General Laws the Commonwealth is required to provide certain health care and life insurance benefits for retired employees of the Commonwealth, housing authorities, redevelopment authorities and certain other governmental agencies. Substantially all of the Commonwealth's employees may become eligible for these benefits if they reach retirement age while working for the Commonwealth. Eligible retirees are required to contribute a specified percentage of the health care/benefit costs, which are comparable to contributions required from employees. The Commonwealth is reimbursed for the cost of benefits to retirees of the eligible authorities and non-state agencies.

The Group Insurance Commission (GIC) of the Commonwealth manages the Commonwealth's defined benefit OPEB plan as an agent multiple employer program including the Commonwealth and 370 municipalities and other non-Commonwealth governmental entities. These entities that participate in the GIC are responsible for paying premiums at the same rate to the GIC and therefore benefit from the Commonwealth's premium rates. The GIC has representation on the Board of Trustees of the State Retiree Benefits Trust (SRBT).

At the inception of MassDOT, the employees of the former Massachusetts Turnpike Authority became eligible to participate in the Commonwealth's OPEB plan. All other employees of MassDOT were members of the plan prior to the creation of MassDOT and remain so. The liability for MassDOT (including former MTA employees) is included in the Commonwealth's liability.

The SRBT is set up solely to pay for OPEB benefits and the cost to administer those benefits. It can only be revoked when all such health care and other non-pension benefits, current and future, have been paid or defeased. GIC administers benefit payments, while the Trustees are responsible for investment decisions. The FY16 General Appropriation Act transferred approximately \$425 million to the Trust for the purpose of benefits payments.

Funding Policy

Employer and employee contribution rates are set in General Law. The Commonwealth recognizes its share of the costs on an actuarial basis. As of June 30, 2016 and as of the valuation date (January 1, 2016), Commonwealth participants contributed 0% to 20% of premium costs, depending on the date of hire and whether the participant is active, retiree, or survivor status. As part of the FY10 General Appropriation Act, all active employees pay an additional 5% of premium costs. Normal costs paid for OPEB to retirees during FY16 totaled approximately \$614 million. There are 154,684 participants eligible to receive benefits at June 30, 2016.

Effective beginning FY14, the Commonwealth by statute is required to allocate, to the SRBT, a portion of revenue received under the Master Settlement Agreement with tobacco companies, increasing from 10% in FY14 to 100% by

FY23. In FY16, 30% of tobacco settlement proceeds or approximately \$77 million was allocated to the SRBTF, the same percentage of proceeds as in FY15. The percentage of proceeds to be transferred to the SRBTF in FY17 was frozen at 30%, overriding existing statute.

Annual OPEB Cost and Net OPEB Obligation, Funded Status and Funding Progress

The Commonwealth is not required to contribute the actuarially determined annual required contribution (ARC) under the provisions of GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, and under Massachusetts General Laws. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed thirty years. For FY16, the Commonwealth's annual OPEB contribution of approximately \$614 million for retiree benefits was less than the ARC. The Commonwealth's annual OPEB cost, the percentage of annual OPEB cost contributed to the SRBT and the net OPEB obligation for the Commonwealth for FY16 are as follows from the valuation calculated as of January 1, 2016 (amounts in millions except percentages):

	<u>2016</u>	SRBT
Annual required contribution (ARC).....	\$	1,418
Interest on net OPEB obligation		252
Adjustment to annual required contribution		(195)
Annual OPEB cost (AOC).....		1,475
Less: Contributions made*		(614)
Increase in net OPEB obligation.....		861
Net OPEB obligation as reported at beginning of year		5,605
Net OPEB obligation - end of year.....	\$	6,466
Percentage of annual OPEB cost contribution.....		41.6%
<u>2015</u>		
Annual OPEB cost.....	\$	1,410
Percentage of annual OPEB cost contributed.....		45.2%
Net OPEB obligation - end of year.....	\$	5,605
<u>2014</u>		
Annual OPEB cost.....	\$	1,293
Percentage of annual OPEB cost contributed.....		47.0%
Net OPEB obligation - end of year.....	\$	4,832

*Includes approximately \$77 million in tobacco settlement revenues.

	Actuarial Value of Plan Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Annual Covered Payroll (1)	UAAL as a % of Covered Payroll (1)
Actuarial Valuation as of January 1, 2016...	\$ 760,400	\$ 17,082,900	\$ 16,322,500	4.5%	\$ 5,792,288	281.8%

(1) The covered payroll amount approximates the employer payroll

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the SRBT and the annual required contributions of the Commonwealth are subject to continual revision as actual results are compared with past

expectations and new estimates are made about the future. The schedule of funding progress, presented as required supplementary information following the notes to the financial statements, presents multi-year trend information that shows whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

Actuarial Methods and Assumptions

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the Commonwealth and those non-Commonwealth governments that participate in the GIC) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs on a premium basis between the Commonwealth and those non-Commonwealth governments that participate in the GIC to that point. The actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

The actuarial assumptions included a 4.5% investment rate of return (net of administrative expenses) and an annual healthcare cost trend rate of 9.0%, decreasing by 0.5% each year to an ultimate rate of 5.0% in 2024.

Administrative expenses are expected to rise 5.0% per annum. The Commonwealth's unfunded actuarial accrued liability is being amortized as a level percentage of projected payroll on a closed basis for a period of thirty years, increasing at a rate of 4.5% per year, the same rate as the projected salary increases.

A schedule of funding progress for OPEB is presented as Required Supplementary Information (RSI).

The most recent OPEB actuarial valuation for the Commonwealth is available on the Comptroller's web site at <http://www.mass.gov/comptroller/publications-and-reports/financial-reports/valuations.html>. There is currently no separate, audited GAAP-basis postemployment benefit plan report available for the Commonwealth.

MSBA

The MSBA has a separate OPEB trust fund. The amount of assets and actuarial accrued liabilities related to MSBA's OPEB plan are not material to the Commonwealth (approximately \$2.6 million) and are therefore, not included in these financial statements.

10. LEASES

Primary Government

In order to finance the acquisition of equipment, the Commonwealth has entered into various lease/purchase agreements, including tax-exempt lease purchase (TELP) agreements, which are accounted for as capital leases. Included in the capital assets of the Commonwealth are additions financed by capital leases. For FY16, these additions are approximately \$31 million. Lease agreements are for various terms and contain clauses indicating that their continuation is subject to appropriation by the Legislature.

The Commonwealth has numerous operating lease agreements for real property and equipment with varying terms. These agreements contain provisions indicating that continuation is subject to appropriation by the Legislature.

The Institutions of Higher Education lease real property and equipment under numerous operating lease agreements for varying terms. The following schedule summarizes future minimum payments under non-cancelable leases for governmental activities and for the Institutions of Higher Education – reported as a business-type activity, for the fiscal year ended June 30, 2016 (amounts in thousands):

Fiscal Year Ended June 30	Governmental Activities					Business - Type Activities			
	Capital Leases		Operating Leases	MSBA Operating Leases	Governmental Activities Total	Capital Leases		Operating Leases	Business - Type Activities Total
	Principal	Interest				Principal	Interest		
2017	\$ 8,795	\$ 1,723	\$ 210,399	\$ 1,043	\$ 221,960	\$ 2,797	\$ 357	\$ 40,774	\$ 43,928
2018	8,333	1,632	144,715	1,068	155,748	1,868	302	38,358	40,528
2019	4,064	796	123,002	1,092	128,954	885	245	35,636	36,766
2020	3,221	631	90,390	1,117	95,359	863	213	31,833	32,909
2021	3,121	611	57,316	1,141	62,189	458	181	30,518	31,157
2022 - 2026	13,068	2,560	131,553	4,812	151,993	2,657	492	136,635	139,784
2027 - 2031	700	137	54,514	—	55,351	359	8	820	1,187
2032 - 2036	—	—	43,593	—	43,593	—	—	—	—
2037 - 2041	—	—	42,291	—	42,291	—	—	—	—
2042 - 2046	—	—	39,354	—	39,354	—	—	—	—
2047 - 2051	—	—	28,675	—	28,675	—	—	—	—
Total lease obligations	41,302	8,090	965,802	10,273	1,025,467	9,887	1,798	314,574	326,259
Less: current portion	(8,795)	(1,723)	(210,399)	(1,043)	(221,960)	(2,797)	(357)	(40,774)	(43,928)
Long - term lease obligations ...	<u>\$ 32,507</u>	<u>\$ 6,367</u>	<u>\$ 755,403</u>	<u>\$ 9,230</u>	<u>\$ 803,507</u>	<u>\$ 7,090</u>	<u>\$ 1,441</u>	<u>\$ 273,800</u>	<u>\$ 282,331</u>

Capital assets acquired under capital lease (amounts in thousands):

Asset type:	Primary Government	
	Governmental Activities	Business - Type Activities
Buildings	\$ —	\$ 12,665
Machinery and equipment	57,503	12,674
Total assets	57,503	25,339
Less: accumulated depreciation	(16,125)	(13,921)
Total	<u>\$ 41,378</u>	<u>\$ 11,418</u>

11. OTHER LONG-TERM LIABILITIES

A. WORKERS' COMPENSATION AND GROUP INSURANCE LIABILITIES

Workers' Compensation is managed as part of the course of the Commonwealth's general operations. No separate fund for workers' compensation is provided for in Massachusetts General Laws. Claims for compensation are not separately insured and are funded by the Commonwealth only when incurred. Such losses, including estimates of amounts incurred, but not reported, are included as accrued liabilities in the accompanying financial statements when the loss is incurred. The Commonwealth assumes the full risk of claims filed under a program managed by the Human Resources Division. For personal injury, Massachusetts General Laws limit the risk assumed by the Commonwealth to \$100,000 per occurrence, in most circumstances.

Workers' compensation costs are recognized when claims are presented and paid. The Commonwealth's outstanding liability for such claims at June 30, 2016 is estimated to be \$271 million of which approximately \$39 million is expected to be paid during FY17.

Changes in the Commonwealth's liability relating to workers' compensation claims in FY16 and FY15 were (amounts in thousands):

	FY16	FY15
Claims liability, beginning of year.....	\$ 274,429	\$ 273,432
Increase in liability estimate	54,250	57,954
Payments and decreases in liability estimate	(57,959)	(56,957)
Claims liability, end of year	<u>\$ 270,720</u>	<u>\$ 274,429</u>

The Group Insurance Commission (GIC), a department of the Commonwealth, manages health insurance claims of the Commonwealth's active and retired employees. The Commonwealth is self-insured and various health insurance providers provide health care services to the employees. The accrued liability is estimated based on data provided to the GIC by the insurance companies who participate in the self-insured plans.

Changes in the Commonwealth's liability relating to group insurance claims in FY16 and FY15 were (amounts in thousands):

	FY16	FY15
Claims liability, beginning of year.....	\$ 107,949	\$ 97,021
Increase in liability estimate	1,630,534	1,657,017
Payments and decreases in liability estimate	(1,627,558)	(1,646,089)
Claims liability, end of year	<u>\$ 110,925</u>	<u>\$ 107,949</u>

B. OTHER CLAIMS & JUDGMENTS

A number of lawsuits are pending or threatened against the Commonwealth, which arise from the ordinary course of operations. These include claims for property damage and personal injury, breaches of contract, condemnation proceedings and other alleged violations of law. The Commonwealth records a liability for those cases in which it is probable that a loss will be incurred and the amount of the potential judgment can be reasonably estimated or a settlement or judgment has been reached but not paid. A short term liability of approximately \$11 million is recorded based on; 1) historical payments made and 2) actual claims settled and to be paid prior to June 30, 2016.

The following amounts were recognized for claims and judgments in FY16 and FY15 (amounts in thousands):

	FY16	FY15
Unpaid claims, beginning of year.....	\$ 11,819	\$ 35,703
Incurred claims	16,269	—
Claim payments and reductions	(16,677)	(23,884)
Unpaid claims end of year	<u>\$ 11,411</u>	<u>\$ 11,819</u>

C. ENVIRONMENTAL REMEDIATION

Governmental Accounting Standards Board Statement No 49, *Accounting and Financial Reporting for Pollution Remediation Obligations* (GASB 49) became effective in FY09. GASB 49 provides guidance in estimating and reporting the potential costs of pollution remediation. While GASB 49 does not require the Commonwealth to search for pollution, it does require the Commonwealth to reasonably estimate and report a remediation liability when any of the following obligating events has occurred:

- Pollution poses an imminent danger to the public and the Commonwealth is compelled to take action;
- The Commonwealth is found in violation of a pollution-related permit or license;
- The Commonwealth is named, or has evidence that it will be named, as a responsible party by a regulator;
- The Commonwealth is named, or has evidence that it will be named, in a lawsuit to enforce a cleanup;
- The Commonwealth commences or legally obligates itself to conduct remediation activities.

Site investigation, planning and design, cleanup and site monitoring are typical remediation activities underway across the Commonwealth. Several Commonwealth agencies have dedicated programs, rules and regulations that routinely deal with remediation related issues; others become aware of pollution conditions in the fulfillment of their missions. The Commonwealth has the knowledge and expertise to estimate the remediation obligations presented herein based upon prior experience in identifying and funding similar remediation activities.

The standard requires the Commonwealth to calculate pollution remediation liabilities using the expected cash flow technique, which measures the liability as the sum of probability-weighted amounts in a range of possible estimated amounts. Where the Commonwealth cannot reasonably estimate a pollution remediation obligation it does not report a liability. Several state departments perform continual monitoring of polluted sites. Since the monitoring for such sites is perpetual, undiscounted multi-year costs for such sites have not been estimated. Because of a lack of information about the type and extent of the remediation effort that could be required, no range of outlays for the overall remediation effort for such sites could be developed at this time.

The remediation obligation estimates that appear in this report are subject to change over time. Cost may vary due to price fluctuations, changes in technology, changes in potential responsible parties, results of environmental studies, changes to statutes or regulations and other factors that could result in revisions to these estimates. Prospective recoveries from responsible parties may reduce the Commonwealth's obligation. Capital assets may be created when pollution remediation outlays are made under specific circumstances.

During the fiscal year, the Commonwealth had the following activity related to GASB 49 (amounts in thousands):

	Governmental Activities	Business-Type Activities	Government-Wide Total
Environmental remediation liability, beginning of year.....	\$ 207,979	\$ 11	\$ 207,990
Expected additional future outlays, changes in liability estimates.....	330,935	—	330,935
FY16 outlays for environmental remediation	(8,065)	(11)	(8,076)
Environmental remediation liability, end of year.....	<u>\$ 530,849</u>	<u>\$ —</u>	<u>\$ 530,849</u>

Massachusetts Military Reservation. The Commonwealth, through the Executive Office of Energy and Environmental Affairs, the Department of Environmental Protection and the Attorney General's office, were engaged in discussions with federal Natural Resource Trustees, including the United States Army and Air Force, the Department of the Interior and the National Oceanic and Atmospheric Administration and private contractors regarding natural resource damages at the Massachusetts Military Reservation on Cape Cod. Federal Trustees and private contractors claim that the Commonwealth and others are liable for natural resource damages due to widespread contamination primarily from past military activities at the Reservation and are responsible for response actions and related clean-up activities. The assessment process for natural resource damages is set out in federal regulations and has not been completed. While no recent comprehensive estimate of natural resource damages and response actions is available, it is expected that the

damages and response actions may cost at least tens of millions of dollars. In 2013, the state and federal trustees reopened preliminary discussions per a Trustee Council resolution on a potential settlement framework.

Closed State Facilities. The Commonwealth has 17 facilities that contain a total of 235 buildings, mainly in closed state hospitals that may have varying degrees of asbestos, polychlorinated biphenyl (PCB's) and other compounds that are currently in a dormant state. The Commonwealth typically sells these facilities at minimal cost to private developers who assume full responsibility for all cleanup activity. Cost estimates are only performed during the sale process. At this time, the Commonwealth has no estimate of any potential asset that would be developed from these activities that would ready these sites for sale.

D. COST OF LIVING ADJUSTMENTS

The Commonwealth is financially responsible for the cost of living adjustment (COLA) granted to participants in various retirement systems of cities, towns and counties in fiscal years 1981 to 1997. Chapter 17 of the Acts of 1997 effective for fiscal year 1998 transferred the responsibility for funding COLAs for separate (non-teacher) retirement systems of cities and towns to their respective systems. Any future COLA granted by the Legislature to employees of these plans will be the responsibility of the individual system, assuming approval by the local board. The individual employer governments are also responsible for the basic pension benefits.

Payments of approximately \$25 million for COLAs granted to participants in retirement systems of cities, towns and counties were made during fiscal year 2016.

As of June 30, 2016, the Commonwealth's liability for COLA was approximately \$161 million.

12. CONTINGENCIES/COMMITMENTS

The Commonwealth receives significant financial assistance from the federal government. Entitlement to these resources is generally contingent upon compliance with terms and conditions of the grant or reimbursement agreements and with applicable federal regulations, including the expenditure of the resources for eligible purposes. Substantially all federal financial assistance is subject to financial and compliance audits.

Chapter 200A of the Massachusetts General Laws, the Commonwealth's Abandoned Property Law, requires deposit of certain unclaimed assets into a managed Fiduciary Fund. These unclaimed assets are to be remitted to the General Fund each June 30, where it is included as miscellaneous revenue. Amounts remitted during FY16 totaled approximately \$81 million. A portion of accumulated claims since the law's enactment represent a contingency, because claims for refunds can be made by the owners of the property.

Drug Testing Laboratory disputes. On August 28, 2012, a chemist formerly employed at the Department of Public Health's drug testing laboratory in Boston admitted to several types of misconduct involving her handling of laboratory samples, which were used in criminal cases. The Governor was informed and ordered the immediate closure of the laboratory. The Governor established a central office to identify individuals who may have been affected by the chemist's alleged malfeasance, which the office has estimated as possibly tens of thousands of criminal drug cases. The Governor also announced that Inspector General Glenn Cunha is conducting an independent assessment of the laboratory's operations. In addition, the Attorney General's Office is conducting a criminal investigation. On December 17, 2012, the former chemist was indicted by a Statewide Grand Jury on 27 charges in connection with altering drug evidence during the testing process and obstructing justice. She was arraigned on December 20, 2012 in Suffolk Superior Court and plead guilty in 2013. There likely will be significant, but as yet undetermined, state costs required to investigate and respond to the chemist's alleged malfeasance. Supplemental appropriations totaling \$30 million were approved during fiscal 2013 to create a fund to reimburse agencies and cities for costs associated with investigating and responding to misconduct at the state drug testing laboratory. In addition, there may be substantial costs to defend civil complaints alleging state liability in both state and federal court and for potential judgments. As the statute of limitations arguably does not expire until October 2015, and the number of specific cases affected by the chemist's misconduct has not been definitively determined, there is not sufficient information to fully estimate these additional state costs.

A. PRIMARY GOVERNMENT

The Commonwealth continues to guarantee certain Massachusetts Bay Transportation Authority (MBTA) debt outstanding at June 30, 2016, totaling approximately \$206 million.

The MBTA's Forward Funding legislation of 1999 provides for the MBTA to issue general obligation, revenue or other debt secured by a pledge or conveyance of all or a portion of revenues, receipts or other assets or funds of the MBTA. Accordingly, all MBTA debt issued after this legislation is not backed by the full faith and credit of the Commonwealth.

Additional commitments of the Commonwealth remain for the University of Massachusetts Building Authority. As of June 30, 2016, the University of Massachusetts Building Authority has approximately \$2.829 billion, of outstanding debt, of which approximately \$117 million is guaranteed by the Commonwealth.

B. TOBACCO SETTLEMENT

A Master Settlement Agreement (MSA) was executed in November of 1998 among five tobacco companies and 46 states, including the Commonwealth. Several additional tobacco companies have joined the MSA and are bound by its terms.

The MSA called for, among other things, annual payments to the states in perpetuity. These payments have been estimated to total more than \$200 billion over the first 25 years, subject to various offsets, reductions and adjustments.

In FY16, the Commonwealth received approximately \$258 million, or 69.6% of the estimated amounts shown in the MSA. During FY16, 30.0% of tobacco settlement payments, or approximately \$77 million, was deposited in the State Retiree Benefits Trust (SRBT) to fund the Commonwealth's liability for retiree health care, with the remainder deposited in the General Fund. Per statute, the portion of the annual tobacco settlement payments dedicated to the SRBT is required to increase by 10.0% per year until it reaches 100% in FY23. While the fiscal 2012 legislation required that 40% of fiscal 2016 tobacco settlement proceeds be transferred to SRBT, the fiscal 2016 budget, as approved by the Governor, included provisions that temporarily changed the funding source for this transfer for fiscal 2016. Those provisions direct that all tobacco settlement proceeds be deposited in the General Fund, but that unspent debt service appropriations be transferred to the SRBT, up to 30% of the value of fiscal 2016 tobacco settlement proceeds. SRBT amounts received in FY16 continued to be less than had previously been projected as payments under the MSA, primarily because the payment amounts are related to national tobacco sales volumes, which have continued to decline since the settlement. The Commonwealth's allocable share of the base amounts payable under the MSA is approximately 4.04%. The Commonwealth's allocable share of the base amounts under the agreement through 2025 is \$8.96 billion, which is subject to adjustments, reductions and offsets. However, in pending litigation, tobacco manufacturers are claiming that because of certain developments, they are entitled to reduce future payments under the MSA and, from FY06 to the present, certain manufacturers have withheld portions of the payments due to the states. The Commonwealth continues to pursue legal action to compel the payment of these additional funds and to obtain a legal determination that the Commonwealth is immune from any downward adjustment to its settlement payments.

In FY04, a Suffolk Superior Court jury rejected the claims of the Commonwealth's private tobacco attorneys that they should be paid a fee amounting to 25% of the Commonwealth's tobacco settlement money. The jury awarded the plaintiffs 10.5% of the amount the Commonwealth receives under the MSA through 2025, minus an offset for amounts received by the attorneys from the tobacco companies pursuant to an arbitration award. To date, however, the attorneys have received more than 10.5% of what the Commonwealth has received under the MSA. As of June 30, 2016, the Commonwealth owes nothing under the jury award. Whether the Commonwealth will in the future be required to pay any sum on private counsel's claim will depend on the actual payments received by the Commonwealth under the MSA through 2025, as well as on the amounts the attorneys receive through the arbitration payments.

C. OTHER CONSTRUCTION COMMITMENTS

At June 30, 2016, the Commonwealth had commitments of approximately \$716 million related to ongoing construction projects.

D. CONTRACTUAL ASSISTANCE TO AUTHORITIES

The Commonwealth is also authorized to pledge its credit in aid of and provide contractual support for certain independent authorities and political subdivisions within the Commonwealth. These Commonwealth liabilities are classified as: (a) general obligation contract assistance; (b) budgetary contractual assistance liabilities; or (c) contingent liabilities. In addition, the Commonwealth is authorized to pledge its credit in support of scheduled, periodic payments to be made by the Commonwealth under interest rate swaps and other hedging agreements related to bonds or notes of the Commonwealth.

General obligation contract assistance obligations arise from statutory requirements for payments by the Commonwealth to the Massachusetts Water Pollution Abatement Trust, the Massachusetts Department of Transportation and the Massachusetts Development Finance Agency that are used by such entities to pay a portion of the debt service on certain of their outstanding bonds. Such assistance constitutes a pledge of the Commonwealth's credit for which a two-thirds vote of the Legislature is required.

Budgetary contract assistance liabilities do not constitute a pledge of the Commonwealth's credit. Contingent liabilities relate to debt obligations of independent authorities and agencies of the Commonwealth, or payment obligations of such entities on hedging transactions related to such debt, that are expected to be paid without Commonwealth assistance, but for which the Commonwealth has some kind of liability if expected payment sources do not materialize. These contingent liabilities consist of guarantees and similar obligations with respect to which the Commonwealth's credit has been or may be pledged. Under legislation approved by the Governor during FY09, the Commonwealth may pledge its credit to guarantee payment obligations of the Massachusetts Turnpike Authority (succeeded by MassDOT in FY10) with respect to certain hedging transactions or provide financial support subject to annual appropriation and without a pledge of the Commonwealth's credit. The same legislation authorizes the Commonwealth to provide credit support to the Turnpike Authority (succeeded by MassDOT) in connection with the issuance of certain refunding bonds, subject to annual appropriation and without a pledge of the Commonwealth's credit. In addition, the Commonwealth has certain statutorily contemplated payment obligations with respect to which the Commonwealth's credit has not been pledged, as in the case of the Commonwealth's obligation to replenish the capital reserve funds securing certain debt obligations of the Massachusetts Housing Finance Agency and the Commonwealth's obligation to fund debt service, solely from monies otherwise appropriated for the affected institution, owed by certain community colleges and state universities on bonds issued by the Massachusetts Health and Educational Facilities Authority and the Massachusetts State College Building Authority.

E. MSBA

The MSBA has estimated the amount of outstanding Waiting commitments and New Program commitments at June 30, 2016 to be \$4.8 million and \$1.0 billion, respectively.

F. SOCIAL IMPACT BONDS

In January 2014, the Commonwealth entered into a “pay for success contract” (“Social Impact Bonds”) with a nonprofit intermediary organization and a nonprofit social service agency to reduce the recidivism rate of young men in the juvenile justice system or on probation. The Commonwealth is obligated to make success payments totaling \$28 million through calendar year 2019 and the Commonwealth’s obligation to make such payments is a general obligation for which the Commonwealth’s full faith and credit are pledged. Payments are only made based upon successful achievement of specified outcomes based on defined performance targets contained in the contract. The Commonwealth entered into a second such contract in December 2014 to address chronic individual homelessness. The contract obligates the Commonwealth to make up to \$6 million in success payments, in the aggregate, through fiscal 2021. In June, 2016 the Commonwealth entered into a third contract to assist individuals in Adult Basic Education (ABE) or English for Speakers of Other Languages (ESOL) programs to transition to employment, higher wage jobs, and higher education. The contract obligates the Commonwealth to make up to \$15 million in success payments, in the aggregate, through fiscal 2023. The total amount of payments backed by the full faith and credit of the Commonwealth under such contracts may not exceed, in the aggregate, \$50 million. As the amount required to be paid as of June 30, 2016 cannot be determined until performance targets have been achieved as determined by independent evaluators, no liability has been accrued in these financial statements for these contracts.

G. PENSIONS

The Massachusetts State Employees Retirement System (MSERS) and the Massachusetts Teachers’ Retirement System (MTRS) (collectively referred to as the Retirement Systems) in conjunction with the Commonwealth are evaluating whether certain Massachusetts General Laws (MGL) or practices may be in conflict with the exclusive benefit rule of Section 401(a)(2) of the Internal Revenue Code or other IRS requirements relating to the operation of tax-exempt pension plans.

The activities being reviewed are: (1) the statutorily directed funding of the budget for the Public Employee Retirement Administration Commission (PERAC) solely from the investment income accounts of MSERS and MTRS; (2) the statutorily directed contributions made from the assets of MSERS in the Pension Reserves Investment Trust Fund (PRIT or PRIT Fund) to the Optional Retirement Plan (ORP), a statutorily authorized retirement plan available to certain employees of the Commonwealth’s Higher Education System; (3) the statutorily mandated reimbursements issued from MSERS to local retirement systems and municipalities for local cost of living adjustments (COLA’s) issued to participants of those systems who retired between 1981 and 1994; (4) deposits of reimbursement revenues received from local retirement systems, i.e. so-called G.L. c. 32, §3(8)(c) payments, to the Commonwealth’s General Fund rather than to MTRS and MSERS assets in the PRIT fund; and, (5) deposits of federal grant fringe payments to the Commonwealth’s General Fund rather than to MTRS and MSERS assets in the PRIT fund.

The Retirement Systems, the Public Employee Retirement Administration Commission (PERAC) and the Executive Office for Administration and Finance have each engaged outside tax counsel, who have provided opinions with respect to the aforementioned activities as they relate to the degree: (1) pension assets were expended for non-Retirement Systems’ employees or their beneficiaries; and (2) revenues or reimbursements were redirected from the Retirement Systems to the General Fund of the Commonwealth.

Management currently is in the process of evaluating outside counsels’ opinions and determining appropriate actions. Corrective actions, if necessary, could include amendments to MGL, prospective corrections, and/or retrospective corrections. If any corrections are required, they could include, but not be limited to, administrative changes or changes to the manner in which pension funding transfers are accounted for and carried out, or a repayment of funds (with interest) from the General Fund to the Retirement Systems that could be substantial. It will not be known whether any corrections or corrective actions need to be taken in-whole or in-part for each of the aforementioned activities until further analysis is carried out by management and discussions with outside counsel and, potentially, with the IRS, are concluded.

13. COMPONENT UNITS AND DETAILS OF DEPARTMENTS AND ENTITIES THAT ARE SEPARATELY AUDITED

The Commonwealth has also considered all potential component units for which it is financially accountable as well as other organizations for which the nature and significance of their relationship with the Commonwealth is such that exclusion would cause the Commonwealth's financial statements to be misleading or incomplete. As required by GAAP, these financial statements present the Commonwealth of Massachusetts (the primary government) and its component units. The Commonwealth has included 40 entities as component units in the reporting entity because of the significance of their operational and/or financial relationships with the Commonwealth. Details of those entities' operations can be found in those entities' basic financial statements and notes to those entities' basic financial statements.

The following entities are presented in the basic financial statements (all having a June 30, 2016 fiscal year end) (entities marked with an * are not legally separate from the Commonwealth but have separately audited financial statements). Entities that are marked with a § also were not audited in accordance with *Governmental Auditing Standards* as promulgated by the Comptroller General of the United States.

Entities Audited by KPMG LLP:

The Massachusetts School Building Authority (MSBA)
 The Pension Reserves Investment Trust Fund (PRIT)
 *The Massachusetts State Lottery Commission
 The Massachusetts Department of Transportation (MassDOT)
 The Massachusetts Clean Water Trust
 Commonwealth Health Insurance Connector Authority
 *§The Massachusetts Municipal Depository Trust (MMDT)

Entities Audited by Other Auditors:

*The University of Massachusetts System
 *Community Colleges:
 Berkshire Community College
 Bristol Community College
 Bunker Hill Community College
 Cape Cod Community College
 Greenfield Community College
 Holyoke Community College
 Massasoit Community College
 Massachusetts Bay Community College
 Middlesex Community College
 Mount Wachusett Community College
 Northern Essex Community College
 North Shore Community College
 Quinsigamond Community College
 Roxbury Community College
 Springfield Technical Community College

 *State Universities:
 Bridgewater State University
 Fitchburg State University
 Framingham State University
 Massachusetts College of Art
 Massachusetts Maritime Academy
 Massachusetts College of Liberal Arts
 Salem State University
 Westfield State University

Worcester State University
The Massachusetts State College Building Authority

Massachusetts Convention Center Authority (MCCA)

Massachusetts Development Finance Agency (MassDevelopment)

§Massachusetts Technology Park Corporation (MTPC)

Massachusetts Clean Energy Center (CEC)

Massachusetts Housing Partnership (MHP)

Economic Development Entities (5 separate entities) including:

Massachusetts Growth Capital Corporation (MGCC)
Commonwealth Corporation
Community Economic Development Assistance Corporation (CEDAC)
§Massachusetts Life Sciences Center
Commonwealth Zoological Corporation (Zoo)

Higher Education Foundations (25 separate entities) including:

Berkshire Community College Foundation
Bristol Community College Foundation
Bunker Hill Community College Foundation
Cape Cod Community College Educational Foundation, Inc.
Greenfield Community College Foundation, Inc.
Holyoke Community College Foundation
Massachusetts Bay Community College Foundation, Inc.
Massasoit Community College Foundation
Middlesex Community College Foundation, Inc.
North Shore Community College Foundation
Springfield Technical Community College Foundation
The Mount Wachusett Community College Foundation, Inc.
The Northern Essex Community College Foundation, Inc.
The Quinsigamond Community College Foundation, Inc.
The Roxbury Community College Foundation, Inc.

Bridgewater State University Foundation:

The Bridgewater State University Foundation
The Bridgewater Alumni Association of Bridgewater State University

Fitchburg State University Foundation, Inc.
Framingham State University Foundation, Inc.
Massachusetts College of Art Foundation, Inc.
Massachusetts College of Liberal Arts Foundation, Inc.
The Massachusetts Maritime Academy Foundation, Inc.
Salem State University Foundation:
The Salem State University Foundation, Inc.
Salem State University Assistance Corporation

Westfield State University Foundation, Inc.
Worcester State Foundation
The University of Massachusetts System Foundation

14. SUBSEQUENT EVENTS

SUBSEQUENT BOND ISSUANCES

On July 7, 2016, the Commonwealth issued approximately \$728 million in General Obligation Refunding Bonds 2016, Series B. These bonds were issued to advance refund approximately \$791 million of various GO Bonds and carry interest rates from 2.0% to 5.0% with final maturity on July 1, 2038. The refunding resulted in reduced debt service of approximately \$133 million and a present value savings of approximately \$103 million over the life of the bonds.

On July 7, 2016, the Commonwealth issued \$250 million in GO Bonds, Consolidated Loan of 2016, Series F (Green Bonds). These bonds carry an interest rate of 3.277%. The first principal payment is due June 1, 2036 with final maturity on June 1, 2046.

On August 18, 2016, the Commonwealth issued approximately \$9 million in GO Bonds, Consolidated Loan of 2016A (College Opportunity Bonds). These bonds carry an interest rate of 0.50%. The first principal payment is due on August 1, 2021 with final maturity on August 1, 2036.

On August, 25, 2016, the MSBA used funds on hand to defease \$15 million of the 2009 Series A Dedicated Sales Tax Bonds outstanding.

On August 30, 2016, the Commonwealth issued \$1.5 billion in GO Revenue Anticipation Notes (RANs) in three \$500 million notes; 2016 Series A, 2016 Series B and 2016 Series C. These notes carry an interest rate of 2.00% and mature on April 24, 2017, May 22, 2017 and June 26, 2017, respectively.

On September 1, 2016, the Commonwealth issued approximately \$282 million in GO Refunding Bonds 2016, Series C. These bonds were issued to advance refund approximately \$300 million of various GO Bonds and carry an interest rate of 5.0% with final maturity on April 1, 2026. The refunding resulted in reduced debt service of approximately \$25 million and a present value savings of approximately \$22 million over the life of the bonds.

On September 1, 2016, the Commonwealth issued \$550 million in GO Bonds 2016, Series G. These bonds carry interest rates from 3.0% to 4.0%. The first principal payment is due September 1, 2031 with final maturity on September 1, 2046.

On October 10, 2016, the Commonwealth issued \$125 million in Federal Highway Grant Anticipation Notes (Accelerated Bridge Program) 2016 Series A. These bonds carry an interest rate of 5.0%. The first principal payment is due June 15, 2019 with final maturity on June 15, 2027.

On October 10, 2016, the Commonwealth issued approximately \$137 million in Commonwealth Transportation Fund Revenue Bonds (Rail Enhancement Program and Accelerated Bridge Program) 2016 Series A. These bonds carry interest rates from 2.0% to 5.0%. The first principal payment is due June 1, 2018 with final maturity on June 1, 2041.

On October 10, 2016, the Commonwealth issued \$104 million in Commonwealth Transportation Fund Revenue Refunding Bonds 2016 Series A. These bonds were issued to advance refund various maturities of the 2012A and 2013A Bonds and carry interest rates from 2.0% to 5.0%. The first principal payment is due June 1, 2023 with final maturity on June 1, 2029.

On October 26, 2016, the MSBA issued \$405 million of Senior Dedicated Sales Tax Bonds (2016 Series B Bonds). The Bonds mature at various dates through November 2046 and interest is due semi-annually each May 15th and November 15th. The interest rate on the bonds ranges from 2% to 5%.

On October 26, 2016, the MSBA refunded \$216 million of 2007 Dedicated Sales Tax Bonds by issuing approximately \$189 million of Senior Sales Tax Refunding Bonds (2016 Series C Bonds). The Bonds mature on November 15, 2035 and the interest on the bonds is payable semi-annually on May 15th and November 15th. The coupons on the bonds

range from 4% to 5%. The refunding resulted in reduced debt service of \$45 million and a present value savings of \$31 million over the life of the debt.

On November 15, 2016, the Commonwealth issued \$200 million in Commonwealth Transportation Fund Revenue Bonds (Rail Enhancement Program and Accelerated Bridge Program) 2016 Series B. These bonds carry an interest rate of 4.0% with the first principal payment due June 1, 2042 with final maturity on June 1, 2046.

On December 8, 2016, the Commonwealth issued \$600 million in three separate series of GO2016 bonds; Series H, I and J in the amounts of \$150 million each for Series H and I and \$300 million for Series J. These bonds carry interest rates of 5% for Series H and I and interest rates from 4.0% to 5.0% for Series J. The first principal maturity on these bonds is due December 1, 2022 with final maturity on December 1, 2045.

On January 4, 2017, the Commonwealth issued \$100 million in GO SIFMA 2017 Series A refunding bonds and approximately \$88 million in GO SIFMA 2017 Series B refunding bonds. These bonds were issued to refund, on a current basis, specific maturities of various GO Refunding (SIFMA Index) Bonds. The Series A bonds carry interest rates of the SIFMA interest rate plus 47 basis points and the Commonwealth will pay interest only starting on February 1, 2017 with principal maturity on February 1, 2019. The Series B bonds carry interest rates of the SIFMA interest rate plus 60 basis points and the Commonwealth will pay interest only starting on February 1, 2017 with principal maturity on February 1, 2020.

All debt issues were sold as tax exempt.

Required Supplementary Information Other Than Management Discussion and Analysis

(Unaudited)

*Schedule of Revenue, Expenditures and Changes in Fund Balances – Statutory Basis – Budget and Actual –
General Fund*

*Explanation of Differences Between Revenues, Expenditures and Other Financing Sources/(Uses) for the
General Fund on a Budgetary Basis and GAAP Basis*

Notes to Required Supplementary Information – Budgetary Reporting

Required OPEB and Pension Schedules

Schedule of Revenues, Expenditures and Changes In Fund Balances - Statutory Basis - Budget and Actual

General Fund

Fiscal Year Ended June 30, 2016

(Amounts in thousands)

	Original Budget	Final Budget	Actual	Variance
REVENUES AND OTHER FINANCING SOURCES				
Revenues:				
Taxes.....	\$ 22,604,053	\$ 22,604,053	\$ 22,257,828	\$ (346,225)
Assessments.....	408,336	408,336	395,984	(12,352)
Federal grants and reimbursements.....	10,219,269	10,219,269	10,585,466	366,197
Tobacco settlement revenue.....	272,049	272,049	257,616	(14,433)
Departmental	2,485,457	2,485,327	2,907,604	422,277
Miscellaneous	304,340	304,340	378,568	74,228
Total revenues.....	36,293,504	36,293,374	36,783,066	489,692
Other financing sources:				
Fringe benefit cost recovery.....	290,509	290,509	365,659	75,150
Lottery reimbursements.....	100,604	100,604	107,935	7,331
Lottery distributions	920,542	920,542	975,254	54,712
Operating transfers in	359,261	359,261	280,653	(78,608)
Commonwealth care transfer.....	—	—	44,482	44,482
Stabilization transfer.....	—	—	27,100	27,100
Other fund deficit support.....	—	—	30,031	30,031
Total other financing sources.....	1,670,916	1,670,916	1,831,114	160,198
Total revenues and other financing sources.....	37,964,420	37,964,290	38,614,180	649,890
EXPENDITURES AND OTHER FINANCING USES				
Expenditures:				
Legislature.....	91,447	91,447	61,368	30,079
Judiciary.....	888,209	888,209	878,663	9,546
Inspector General.....	4,459	4,459	4,315	144
Governor and Lieutenant Governor.....	10,563	10,563	6,576	3,987
Secretary of the Commonwealth	40,561	40,561	39,322	1,239
Treasurer and Receiver-General.....	212,143	212,143	205,226	6,917
Auditor of the Commonwealth.....	18,356	18,356	18,354	2
Attorney General	45,544	45,544	44,265	1,279
Ethics Commission	2,069	2,069	2,034	35
District Attorney.....	119,259	119,259	114,084	5,175
Office of Campaign & Political Finance	1,536	1,536	1,516	20
Sheriff's Departments	605,053	605,053	603,220	1,833
Disabled Persons Protection Commission.....	2,943	2,943	2,943	—
Board of Library Commissioners	25,333	25,333	25,333	—
Comptroller.....	14,538	14,538	13,911	627
Administration and finance	2,675,565	2,675,565	2,299,116	376,449
Energy and environmental affairs.....	219,909	219,909	205,154	14,755
Health and human services	5,631,564	5,631,564	5,480,656	150,908
Office of the Child Advocate.....	790	790	595	195
Executive office of education.....	2,327,102	2,327,102	2,281,320	45,782
Center for Health Information and Analysis.....	32,563	32,563	26,625	5,938
Public safety and homeland security	1,156,024	1,156,024	1,121,829	34,195
Housing and economic development.....	563,397	563,460	513,720	49,740
Labor and workforce development.....	78,004	78,004	45,082	32,922
Direct local aid.....	5,465,696	5,465,696	5,462,705	2,991
Medicaid.....	14,851,052	14,851,052	14,851,007	45
Post employment benefits.....	2,426,093	2,426,093	2,461,159	(35,066)
Debt service:				
Principal retirement	604,335	604,335	574,673	29,662
Interest and fiscal charges.....	447,027	447,027	424,579	22,448
Total expenditures.....	38,561,134	38,561,197	37,769,350	791,847
Other financing uses:				
Operating transfers out.....	115,653	115,653	54,293	61,360
Medical assistance transfer.....	1,027,500	1,027,500	665,564	361,936
Delivery system transformation initiatives trust transfer	189,142	189,142	186,907	2,235
Total other financing uses.....	1,332,295	1,332,295	906,764	425,531
Total expenditures and other financing uses.....	39,893,429	39,893,492	38,676,117	1,217,378
Excess (deficiency) of revenues and other financing sources over expenditures and other financing uses.....	(1,929,009)	(1,929,202)	(61,997)	1,867,205
Fund balances (deficit) at beginning of year	1,462,776	1,462,776	1,462,776	—
Fund balances (deficits) at end of year.....	\$ (466,233)	\$ (466,426)	\$ 1,400,842	\$ 1,867,205

See Independent Auditor's Report and notes to required supplementary information.

**Explanation of Differences between Revenues, Expenditures and Other Financing Sources/(Uses)
for the General Fund on a Budgetary Basis and GAAP Basis (in thousands):**

	General
REVENUES	
Actual amounts (budgetary basis) "revenues" from the budgetary comparison schedules.....	\$ 36,783,066
Adjustments for amounts budgeted for on a cash basis, rather than on the modified accrual basis:	
Tax receivable, net.....	(6,372)
Tax refunds and abatements payable, net.....	(50,746)
Federal reimbursements and other receivables	86,549
Reclassifications:	
Higher education revenue is reclassified for GAAP reporting.....	(205,284)
Inflows from component units and other miscellaneous financing sources.....	83,179
Total revenues as reported on the Statement of Revenues, Expenditures and Changes in Fund Balances - Governmental Funds	\$ 36,690,392
OTHER FINANCING SOURCES	
Actual amounts (budgetary basis) "other financing sources" from the budgetary comparison schedule	\$ 1,831,114
Adjustments:	
Higher education revenue is reclassified for GAAP reporting.....	(11)
Proceeds of capital lease on GAAP basis.....	30,706
Consolidation of transfers between funds	(8,721)
Inflows from component units and other miscellaneous financing sources.....	(83,162)
Total other financing sources as reported on the Statement of Revenues, Expenditures and Changes in Fund Balances - Governmental Funds	\$ 1,769,926
EXPENDITURES	
Actual amounts (budgetary basis) "expenditures" from the budgetary comparison schedule	\$ 37,769,350
Adjustments for amounts budgeted for on a cash basis, rather than on the modified accrual basis:	
Medicaid payments.....	129,900
Compensated absences and other accrued liabilities.....	1,920
Reclassifications:	
Capital lease additions are additions to expenditures for GAAP purposes on a fund perspective.....	30,706
Budgetary debt service are reclassified to transfers out to a debt service fund for GAAP purposes as the Commonwealth does not have a statutory debt service fund.....	(999,252)
Reversal of prior year budget to GAAP adjustment.....	25,087
Higher education expenditures are reclassified for GAAP reporting.....	(1,406,627)
Expenditures to component units reported on a GAAP basis	(20,311)
Total expenditures as reported on the Statement of Revenues, Expenditures and Changes in Fund Balances - Governmental Funds	\$ 35,530,773
OTHER FINANCING USES	
Actual amounts (budgetary basis) "other financing uses" from the budgetary comparison schedule	\$ 906,764
Adjustments and Reclassifications:	
Consolidation of transfers between funds	(8,721)
Budgetary higher education amounts are reclassified to transfers under the modified accrual basis	1,201,332
Budgetary debt service are reclassified to transfers out to a debt service fund for GAAP purposes as the Commonwealth does not have a statutory debt service fund.....	999,252
Total other financing uses as reported on the Statement of Revenues, Expenditures and Changes in Fund Balances - Governmental Funds	\$ 3,098,627

See Independent Auditor's Report and notes to required supplementary information.

Note to Required Supplementary Information – Budgetary Reporting

The Commonwealth passes a combined budget for all budgeted operations. State finance law requires that a balanced budget be approved by the Governor and the Legislature. The Governor presents an annual budget to the Legislature, which includes estimates of revenues and other financing sources and recommended expenditures and other financing uses. The Legislature, which has full authority to amend the budget, adopts an expenditure budget by appropriating monies at the individual appropriation account level in an annual appropriations act. Generally, expenditures may not exceed the level of spending authorized for an appropriation account.

Before signing the appropriations act, the Governor may veto or reduce any specific item, subject to legislative override. Further changes to the budget established in the annual appropriations act may be made via supplemental appropriation acts or other legislative acts. These must also be signed by the Governor and are subject to the line item veto.

In addition, Massachusetts General Laws authorize the Secretary of Administration and Finance, with the approval of the Governor, upon determination that available revenues will be insufficient to meet authorized expenditures, to withhold allotments of appropriated funds which effectively reduce the account's expenditure budget. The majority of the Commonwealth's appropriations are non-continuing accounts which lapse at the end of each fiscal year. Others are continuing accounts for which the Legislature has authorized that an unspent balance from the prior year be carried forward and made available for spending in the current fiscal year. In addition, the Legislature may direct that certain revenues be retained and made available for spending within an appropriation. Fringe benefits, pension costs, and certain other costs which are mandated by state finance law are not itemized in the appropriation process and are not separately budgeted.

Because revenue budgets are not updated subsequent to the original appropriation act, the comparison of the initial revenue budget to the subsequent, and often modified, expenditure budget can be misleading. Also, these financial statements portray fund accounting with gross inflows and outflows, thus creating a difference to separately published budget documents, which eliminate some interfund activity. In conducting the budget process, the Commonwealth excludes those interfund transactions that by their nature have no impact on the combined fund balance of the budgeted funds.

The FY04 General Appropriation Act (Chapter 26, Section 167 of the Acts of 2003), amended section 9C, directing the Governor to notify the Legislature in writing as to the reasons for and the effect of any reductions in spending. Alternatively, the Governor may propose specific additional revenues to fund the deficiency. The Governor may also propose to transfer funds from the Stabilization Fund to cure the deficiency. This proposal must be delivered to the Legislature 15 days before any reductions take effect.

The following table summarizes budgetary activity for FY16 (amounts in thousands):

	Revenues	Expenditures
General Appropriation Act, Chapter 46 of the Acts of 2015:		
Direct appropriations.....	\$ 38,146,700	\$ 37,842,036
Estimated revenues, transfers, retained revenue appropriations, and appropriations carried forward from FY2015	—	1,313,841
Total original budget	38,146,700	39,155,877
Supplemental Acts of 2015:		
Chapter 119	—	565,925
Supplemental Acts of 2016:		
Chapter 70	—	136,014
Chapter 155	—	24,434
Chapter 283	—	186,837
Total budgeted revenues and expenditures per Legislative action	—	913,210
Chapter 29, Section 9C Reductions.....	—	(46,995)
Plus: Pension contributions and revenue authorized outside of General Appropriation Act, and other transfers of revenue and spending	2,068,042	2,088,000
Budgeted revenues and expenditures as reported.....	\$ 40,214,742	\$ 42,110,092

As the budget is not passed taking into account the structure of funds, but of appropriations, reports contained within the Commonwealth's MMARS accounting system demonstrate budgetary compliance by appropriation. Those reports are available upon request at the Office of the State Comptroller, Financial Reporting and Analysis Bureau, at (617) 973-2660.

Schedule of Funding Progress and Contributions - Other Post Employment Benefits

(Amounts in thousands except for percentages)

State Retiree Benefits Trust Funding Progress for the last six fiscal years

	Actuarial Value of Plan Assets	Actuarial Accrued Liability	Unfunded Actuarial Liability (UAAL)	Funded Ratio	Annual Covered Payroll	UAAL as a % of Covered Payroll
Actuarial Valuation as of January 1, 2016.....	\$ 760,400	\$ 17,082,900	\$ 16,322,500	4.5%	\$ 5,792,288	281.8%
Actuarial Valuation as of January 1, 2015.....	610,000	16,502,800	15,892,800	3.7%	5,591,911	284.2%
Actuarial Valuation as of January 1, 2014.....	511,200	15,670,200	15,159,000	3.3%	5,344,510	283.6%
Actuarial Valuation as of January 1, 2013.....	406,700	15,784,100	15,377,400	2.6%	5,183,195	296.7%
Actuarial Valuation as of January 1, 2012.....	360,500	16,659,400	16,298,900	2.2%	4,922,388	331.1%
Actuarial Valuation as of January 1, 2011.....	350,500	16,568,600	16,218,100	2.1%	4,808,250	337.3%

The following table shows the Commonwealth's annual required contribution (ARC) and percent of the ARC funded for the State Retiree Benefits Trust (SRBT) for each of the past six fiscal years.

Fiscal Year	Annual Required Contribution	Percentage Contributed
2016.....	\$ 1,418,000	43.3%
2015.....	1,361,000	46.8%
2014.....	1,251,000	48.6%
2013.....	1,251,000	46.8%
2012.....	1,286,000	43.4%
2011.....	1,276,000	43.7%

For a complete analysis of the Commonwealth's actuarial valuation report, please contact the Office of the State Comptroller, 1 Ashburton Place, 9th Floor, Boston, MA 02108.

See Independent Auditor's Report

**Schedule of Changes in the State Employees' Retirement
System (SERS) Net Pension Liability and Related Ratios**

(Amounts in thousands, except for percentages)

	2016	2015	2014
Total pension liability, July 1.....	\$ 35,425,414	\$ 31,355,000	\$ 29,988,000
Service cost.....	813,975	700,012	631,634
Interest.....	2,638,929	2,411,551	2,405,204
Change in benefit terms.....	400,000	230,302	—
Differences between expected and actual experience.....	589,009	275,000	—
Changes of assumptions.....	—	2,330,000	102,000
Benefit payments, including refunds of member contributions.....	(2,107,327)	(1,876,451)	(1,771,838)
Net change in total pension liability.....	2,334,586	4,070,414	1,367,000
Total pension liability, June 30 (a).....	<u>\$ 37,760,000</u>	<u>\$ 35,425,414</u>	<u>\$ 31,355,000</u>
Plan fiduciary net position, July 1.....	\$ 24,042,585	\$ 23,930,895	\$ 21,084,958
Contributions:			
Employers - Commonwealth and MassDOT.....	660,818	601,931	550,483
Non-employer contributions - Commonwealth.....	21,830	18,040	21,293
Employer and non-employer contributions - other.....	16,642	15,808	6,048
ERIP funding contribution - Commonwealth.....	29,093	—	—
Plan members.....	591,948	549,493	501,106
Other additions.....	397,077	92,503	68,967
Total contributions.....	1,717,408	1,277,775	1,147,897
Net investment income.....	422,938	800,886	3,551,012
Benefit payments, including refunds of plan member contributions.....	(2,107,327)	(1,876,451)	(1,771,838)
Administrative expense.....	(20,624)	(15,966)	(12,705)
Other changes.....	(83,824)	(74,554)	(68,429)
Net change in plan fiduciary net position.....	(71,429)	111,690	2,845,937
Plan fiduciary net position, June 30 (b).....	<u>\$ 23,971,156</u>	<u>\$ 24,042,585</u>	<u>\$ 23,930,895</u>
Plan net pension liability - June 30 (a) - (b).....	<u>\$ 13,788,844</u>	<u>\$ 11,382,829</u>	<u>\$ 7,424,105</u>
Plan fiduciary net position as a percentage of the total pension liability.....	63.5%	67.9%	76.3%
Covered employee payroll (as of the actuarial valuation date).....	\$ 5,792,288	\$ 5,591,911	\$ 5,344,510
Net pension liability as a percentage of covered employee payroll.....	238.1%	203.6%	138.9%

Note: This schedule is intended to present 10 years of data. Additional years will be presented when available. Certain amounts for FY15 were reclassified to conform to current year presentation.

See Independent Auditor's Report and notes to the schedule

NOTES TO THE SERS SCHEDULE

FY2016 Changes in Actuarial Assumptions

Changes in Benefit Terms:

Chapter 176 of the Acts of 2011 created a one time election for eligible members of the Optional Retirement Plan (ORP) to transfer to the State Employee's Retirement System (SERS) and purchase service for the period while members of the ORP. As a result, the total pension liability of SERS has increased by approximately \$400 million as of June 30, 2016.

FY2015 Changes in Actuarial Assumptions

Changes in Benefit Terms:

In May 2015, Chapter 19 of the Acts of 2015 created an Early Retirement Incentive (ERI) for certain members of SERS who upon election of the ERI retired effective June 30, 2015. As a result, the total pension liability of SERS has increased by approximately \$230 million as of June 30, 2015.

Changes of assumptions:

Change in the investment rate of return

Subsequent to the issuance of the Commonwealth's 2015 CAFR, the Commonwealth revised its discount rate to 7.50% from 7.75%. Consequently, the Commonwealth has adjusted certain information as previously reported in the Schedule of Changes in the Massachusetts State Employees' Retirement System Net Pension Liability and Related Ratios as contained in the required supplemental section of the Commonwealth's 2015 CAFR. This change resulted in an increase of approximately \$933 million which affected the net pension liability as of and for the fiscal year ending June 30, 2015.

Change in mortality

The following mortality assumption changes were made in the January 1, 2015 Actuarial Valuation for SERS:

- Pre-retirement - was changed to RP-2000 Employees table projected generationally with Scale BB and a base year of 2009 (gender distinct) from RP-2000 Employees table projected 22 years with Scale AA.
- Post-retirement - was changed to RP-2000 Healthy Annuitant table projected generationally with Scale BB and a base year of 2009 (gender distinct) from RP-2000 Healthy Annuitant table projected 17 years with Scale AA.
- Disabled members - was changed to be assumed to be in accordance with RP-2000 Healthy Annuitant table projected generationally with Scale BB and a base year of 2015 (gender distinct) from RP-2000 Healthy Annuitant table projected 7 years with Scale AA set forward 3 years for males.

See Independent Auditor's Report

**Schedule of Changes in the Massachusetts Teachers' Retirement
System (MTRS) Net Pension Liability and Related Ratios**

(Amounts in thousands, except for percentages)

	2016	2015	2014
Total pension liability, July 1.....	\$ 45,918,711	\$ 41,435,000	\$ 39,931,000
Service cost.....	843,800	768,032	720,712
Interest	3,402,525	3,166,728	3,227,025
Differences between expected and actual experience.....	(74,025)	153,000	—
Changes of assumptions.....	—	3,080,000	108,000
Benefit payments, including refunds of member contributions.....	(2,791,011)	(2,684,049)	(2,551,737)
Net change in total pension liability	1,381,289	4,483,711	1,504,000
Total pension liability, June 30 (a).....	<u>\$ 47,300,000</u>	<u>\$ 45,918,711</u>	<u>\$ 41,435,000</u>
Plan fiduciary net position, July 1	\$ 25,429,068	\$ 25,538,646	\$ 22,697,302
Contributions:			
Non-employer	1,124,583	1,021,930	937,379
Plan members	699,422	669,941	653,328
Other additions	202,796	190,925	150,522
Total contributions	2,026,801	1,882,796	1,741,229
Net investment income.....	441,363	845,503	3,771,883
Benefit payments, including refunds of plan member contributions	(2,791,011)	(2,684,049)	(2,551,737)
Administrative expense.....	(24,220)	(23,444)	(20,499)
Other changes.....	(139,929)	(130,384)	(99,532)
Net change in plan fiduciary net position	(486,996)	(109,578)	2,841,344
Plan fiduciary net position, June 30 (b)	<u>\$ 24,942,072</u>	<u>\$ 25,429,068</u>	<u>\$ 25,538,646</u>
Plan net pension liability - June 30 (a) - (b)	<u>\$ 22,357,928</u>	<u>\$ 20,489,643</u>	<u>\$ 15,896,354</u>
Plan fiduciary net position as a percentage of the total pension liability	52.7%	55.4%	61.6%
Covered employee payroll (as of actuarial valuation date)	\$ 6,388,732	\$ 6,204,274	\$ 5,962,650
Net pension liability as a percentage of covered employee payroll	350.0%	330.3%	266.6%

Note: This schedule is intended to present 10 years of data. Additional years will be presented when available. Certain amounts for FY14 were reclassified to conform to current year presentation.

See Independent Auditor's Report and notes to the schedule

NOTES TO THE MTRS SCHEDULE

FY2015 Changes in Actuarial Assumptions

Changes of assumptions:

Change in the investment rate of return

Subsequent to the issuance of the Commonwealth's 2015 CAFR, the Commonwealth revised its discount rate to 7.50% from 7.75%. Consequently, the Commonwealth has adjusted certain information as previously reported in the Schedule of Changes in the Massachusetts Teachers' Retirement System Net Pension Liability and Related Ratios as contained in the required supplemental section of the Commonwealth's 2015 CAFR. This change resulted in an increase of approximately \$1.190 billion which affected the net pension liability as of and for the fiscal year ending June 30, 2015.

Change in mortality

The following mortality assumption changes were made in the January 1, 2015 Actuarial Valuation for MTRS:

- Pre-retirement - was changed to RP-2014 Employees table projected generationally with Scale BB and a base year of 2014 (gender distinct) from RP-2000 Employees table adjusted for "white-collar" employment projected 22 years with Scale AA.
- Post-retirement - was changed to RP-2014 Healthy Annuitant table projected generationally with Scale BB and a base year of 2014 (gender distinct) from RP-2000 Healthy Annuitant table adjusted for large annuity amounts and projected 17 years with Scale AA.
- Disabled members - was changed to be assumed to be in accordance with RP-2014 Healthy Annuitant table projected generationally with Scale BB and a base year of 2014 set forward 4 years from RP-2000 Healthy Annuitant table adjusted for large annuity amounts and projected 7 years with Scale AA set forward 3 years for males.

See Independent Auditor's Report

Schedule of Investment Returns

	2016	2015	2014
Annual money-weighted rate of return, net of investment expense - SERS.....	1.79%	3.40%	17.13%
Annual money-weighted rate of return, net of investment expense - MTRS	1.78%	3.40%	17.12%

Note: This schedule is intended to present 10 years of data. Additional years will be presented when available.

See Independent Auditor's Report

Schedule of Proportionate Share of the Net Pension Liability and Contributions

State Employees' Retirement System

Last 10 Years
(amounts in thousands)

Proportionate Share of the Net Pension Liability	2016 (measurement date June 30, 2015)	2015 (measurement date June 30, 2014)
Proportion of the net pension liability	93.8%	93.9%
Proportionate share of the net pension liability	\$ 10,682,765	\$ 6,972,443
Plan net position as a percentage of the total pension liability	67.9%	76.3%
Covered payroll	\$ 5,136,405	\$ 4,975,346
Net pension liability as a percentage of covered payroll	208.0%	140.1%

Contributions	Fiscal Year Ending June 30		
	2016	2015	2014
Statutorily required contribution.....	\$ 682,648	\$ 619,971	\$ 571,776
Contributions in relation to the statutorily required contribution ..	682,648	619,971	571,776
Annual contribution deficiency/(excess)	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>
Covered payroll.....	\$ 5,559,624	\$ 5,136,405	\$ 4,975,346
Contributions as a percentage of covered payroll.....	12.3%	12.1%	11.5%

The State Employees' Retirement System (SERS) is included in the CAFR as a pension trust fund in the fiduciary fund type. SERS is a defined-benefit multiple employer, cost-sharing public employee retirement system.

Note: This schedule is intended to present 10 years of data. Additional years will be presented when available.

See Independent Auditors' Report and notes to the schedule

Schedule of Proportionate Share of the Net Pension Liability and Contributions

Massachusetts Teachers' Retirement System

Last 10 Years
(amounts in thousands)

Proportionate Share of the Net Pension Liability	2016 (measurement date June 30, 2015)	2015 (measurement date June 30, 2014)
Proportion of the net pension liability	100.0%	100.0%
Proportionate share of the net pension liability	\$ 20,489,643	\$ 15,896,354
Plan net position as a percentage of the total pension liability	55.4%	61.6%

Contributions	Fiscal Year Ending June 30		
	2016	2015	2014
Statutorily required contribution	\$ 1,124,583	\$ 1,021,930	\$ 937,379
Contributions in relation to the statutorily required contribution ..	1,124,583	1,021,930	937,379
Annual contribution deficiency/(excess)	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>

The Massachusetts Teachers' Retirement System (MTRS) is included in the CAFR as a pension trust fund in the fiduciary fund type. MTRS is a defined-benefit multiple employer, cost-sharing public employee retirement system.

Note: This schedule is intended to present 10 years of data. Additional years will be presented when available.

See Independent Auditors' Report and notes to the schedule

Schedule of Proportionate Share of the Net Pension Liability and Contributions

Boston Retirement System - Teachers

Last 10 Years
(amounts in thousands)

Proportionate Share of the Net Pension Liability	2016 (measurement date December 31, 2015)	2015 (measurement date December 31, 2014)
Proportion of the net pension liability	54.5%	53.7%
Proportionate share of the net pension liability	\$ 2,402,267	\$ 2,066,546
Plan net position as a percentage of the total pension liability	55.8%	59.6%

Contributions	Fiscal Year Ending December 31		
	2015	2014	2013
Statutorily required contribution	\$ 120,434	\$ 109,485	\$ 99,532
Contributions in relation to the statutorily required contribution ..	120,434	109,485	99,532
Annual contribution deficiency/(excess).....	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>

The Boston Retirement System (BRS) is included in the City of Boston's CAFR. The Boston Teachers' portion of the BRS total pension liability is reported in the Commonwealth's CAFR as a part of the total net pension liability.

Note: This schedule is intended to present 10 years of data. Additional years will be presented when available.

See Independent Auditors' Report and notes to the schedule

NOTES TO THE SCHEDULES OF PROPORTIONATE SHARE OF THE NET PENSION LIABILITY AND CONTRIBUTIONS

SERS and MTRS:

In accordance with Chapter 32 of the Massachusetts General Laws (MGL), the Commonwealth's statutorily determined contributions to SERS and MTRS are based on a three-year funding schedule adopted by the legislature based upon the previous year's actuarial valuation. The most recent funding schedule was adopted in January 2014 (for fiscal years 2015 through 2017) based upon the January 1, 2013 actuarial valuation as prepared by the Public Employee Retirement Administration Commission (PERAC) using the following assumptions:

1. The annual required contribution for FY2015 was determined as part of the January 1, 2013 actuarial valuation using the entry age normal cost method.
2. The actuarial assumptions included (a) 8.00% investment rate of return, (b) 3.50% interest rate credited to the annuity savings fund and (c) 3.00% cost of living increase per year.
3. Salary increases are based on analyses of past experience but range from 3.5% to 9.0% depending on group and length of service.
4. The assumptions do not include post-retirement benefit increases, which are taken into account when granted under amendments to General Laws.
5. The actuarial value of assets was determined using various techniques that smooth the effects of short-term volatility in the market value of investments, with a phased-in approach. Under this approach, 20% of the gains or losses occurring in the prior year are recognized, 40% of those occurring two years prior, etc., so that 100% of gains and losses occurring five years prior are recognized. The actuarial value of assets is adjusted if necessary in order to remain between 90% and 110% of market value.
6. Normal costs are amortized using level percentage of payroll, closed.
7. The remaining amortization period for the unfunded pension liability at January 1, 2013 was 28 years to FY40.

BRS-Teachers:

The actuarially determined contributions were calculated as of December 31, 2013. The funding requirements are established for the employers' fiscal year ended June 30, 2015 and later years and are analyzed based on the preceding two years' experience. The following actuarial methods and assumptions were used to determine the required contribution rates:

Actuarial cost method.....	Entry age normal cost method
Amortization method.....	Prior year's contribution increased by 10% for fiscal 2015, 2016 and 2017, and 7% per year thereafter for Boston Teachers
Remaining amortization period ...	22 years remaining as of January 1, 2014 for Boston Teachers
Asset valuation method	Sum of actuarial value at beginning of year, contributions and investment earnings based on the actuarial interest assumption less benefit payments and operating expenses plus 20% of market value at end of year in excess of that sum, plus additional adjustment toward market value as necessary so that final actuarial value is within 20% of market value.
	Similar formula used for negative adjustment toward market value if actuarial value exceeds market value.
Inflation	4.5%
Salary increases	Varies by length of service with ultimate rate of 4.00% for Boston Teachers
Investment rate of return	7.50% for Boston Teachers



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Other Supplementary Information

Combining Balance Sheet – Other Governmental Funds

Combining Statement of Revenues, Expenditures and Changes in Fund Balance – Other Governmental Funds

*Combining Statement of Revenues, Expenditures and Changes in Fund Balances – Budgetary Basis – Budget
and Actual – Other Budgeted Nonmajor Governmental Funds*

Combining Budget to GAAP Reconciliation – Other Budgeted Nonmajor Governmental Funds

Combining Statement of Net Position Available for Pension Benefits

Combining Statement of Changes in Net Position Available for Pension Benefits

Combining Statement of Net Position Held in Trust for Pool Participants

Combining Statement of Changes in Net Position Held in Trust for Pool Participants

Combining Statement of Changes in Assets and Liabilities – Agency Funds

Combining Statement of Net Position – Nonmajor Component Units

Combining Statement of Revenues, Expenses and Changes in Net Position – Nonmajor Component Units

Combining Balance Sheet

Other Governmental Funds

June 30, 2016

(Amounts in thousands)

	Special Revenue						
	Commonwealth Transportation	Federal Grants	Universal Health Care	Environmental	Community First Trust	Massachusetts Tourism	Gaming Control
ASSETS							
Cash and cash equivalents	\$ —	\$ 10,975	\$ 294,466	\$ 19,394	\$ 57,757	\$ 1,385	\$ 6,735
Restricted cash with fiscal agent	16,690	—	—	—	—	—	—
Receivables, net of allowance for uncollectibles:							
Taxes	67,425	—	10,309	88	—	6,228	—
Due from federal government	—	250,066	—	—	—	—	—
Loans receivable	—	—	—	—	—	—	—
Other receivables	108	—	88,409	282	—	—	1,945
Due from other funds	—	—	—	—	—	—	—
Due from component unit	15,583	—	—	—	—	—	—
Total assets	\$ 99,806	\$ 261,041	\$ 393,184	\$ 19,764	\$ 57,757	\$ 7,613	\$ 8,680
LIABILITIES AND FUND BALANCES							
Liabilities:							
Accounts payable	\$ 475	\$ 233,687	\$ 12,300	\$ 1,928	\$ 27	\$ 1,359	\$ 3,100
Accrued payroll	—	4,238	127	165	12	26	107
Compensated absences	—	—	—	—	—	9	—
Tax refunds and abatements payable	10	—	91	—	—	33	—
Due to other funds	15,108	—	—	—	—	—	—
Due to component units	10,336	—	6,669	—	—	—	—
Other accrued liabilities	—	—	60,437	—	—	—	—
Total liabilities	25,929	237,925	79,624	2,093	39	1,427	3,207
Deferred inflows of resources	—	—	22,264	—	—	—	—
Total liabilities and deferred inflows of resources	25,929	237,925	101,888	2,093	39	1,427	3,207
Fund balances:							
Nonspendable	—	—	—	—	—	—	—
Restricted	16,690	23,116	—	—	57,718	—	—
Committed	57,187	—	291,296	17,671	—	6,186	5,473
Assigned	—	—	—	—	—	—	—
Unassigned (deficits)	—	—	—	—	—	—	—
Fund balances (deficits)	73,877	23,116	291,296	17,671	57,718	6,186	5,473
Total liabilities and fund balances	\$ 99,806	\$ 261,041	\$ 393,184	\$ 19,764	\$ 57,757	\$ 7,613	\$ 8,680

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Special Revenue										
Gaming Revenue	MBTA State & Local Contribution	Community Preservation Trust	Health Insurance Portability and Accountability Act	Division of Professional Licensure	Enhanced 911	Health Information Technology Trust	Regional Greenhouse Gas Initiative (RGGI) Auction Trust	Workforce Training Trust	Child Support Enforcement	
\$ 2	\$ 86,381	\$ 21,667	\$ 7,631	\$ 4,987	\$ 135,605	\$ —	\$ 29,344	\$ 36,713	\$ 18,264	
—	—	—	—	—	—	—	—	—	—	
—	61,096	—	—	—	—	—	—	6,245	—	
—	—	—	782	—	—	866	—	—	2,209	
—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	439	3,770	
—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	
\$ 2	\$ 147,477	\$ 21,667	\$ 8,413	\$ 4,987	\$ 135,605	\$ 866	\$ 29,344	\$ 43,397	\$ 24,243	
\$ 2	\$ 60,592	\$ 26,724	\$ 766	\$ 79	\$ 12,200	\$ 1,989	\$ 2,617	\$ 96	\$ 2,563	
—	—	—	4	116	51	72	23	4	182	
—	—	—	—	—	—	—	—	—	—	
—	868	—	—	—	—	—	—	61	—	
—	—	—	—	—	—	2,767	—	—	—	
—	86,017	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	
2	147,477	26,724	770	195	12,251	4,828	2,640	161	2,745	
—	—	—	—	—	—	—	—	—	—	
2	147,477	26,724	770	195	12,251	4,828	2,640	161	2,745	
—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	
—	—	—	7,643	4,792	123,354	(3,962)	26,704	43,236	21,498	
—	—	—	—	—	—	—	—	—	—	
—	—	(5,057)	—	—	—	—	—	—	—	
—	—	(5,057)	7,643	4,792	123,354	(3,962)	26,704	43,236	21,498	
\$ 2	\$ 147,477	\$ 21,667	\$ 8,413	\$ 4,987	\$ 135,605	\$ 866	\$ 29,344	\$ 43,397	\$ 24,243	

continued

Combining Balance Sheet

Other Governmental Funds

June 30, 2016

(Amounts in thousands)

	Special Revenue						
	Department of Industrial Accidents	Convention and Exhibition Center	Grant Anticipation Note Trust	Debt Defeasance Trust	Expendable Trust	Other	Debt Service
ASSETS							
Cash and cash equivalents	\$ 7,127	\$ 2,759	\$ 2,974	\$ —	\$ 682,697	\$ 119,859	\$ 8,462
Restricted cash with fiscal agent	—	100,821	83,634	—	—	—	12,185
Receivables, net of allowance for uncollectibles:							
Taxes	—	16,353	—	—	—	—	—
Due from federal government	—	—	87,791	—	2,285	—	—
Loans receivable	—	—	—	—	914	6,996	—
Other receivables	5,393	—	—	—	4,570	50	—
Due from other funds	—	—	—	—	—	—	—
Due from component unit	—	—	—	—	—	—	—
Total assets	\$ 12,520	\$ 119,933	\$ 174,399	\$ —	\$ 690,466	\$ 126,905	\$ 20,647
LIABILITIES AND FUND BALANCES							
Liabilities:							
Accounts payable	\$ 45	\$ 14,753	\$ —	\$ —	\$ 42,521	\$ 11,249	\$ —
Accrued payroll	—	—	—	—	2,649	357	—
Compensated absences	—	—	—	—	—	—	—
Tax refunds and abatements payable	—	1	—	—	—	—	—
Due to other funds	—	—	87,791	—	—	—	—
Due to component units	—	—	—	—	—	—	—
Other accrued liabilities	—	—	—	—	—	—	—
Total liabilities	45	14,754	87,791	—	45,170	11,606	—
Deferred inflows of resources	—	—	—	—	—	—	—
Total liabilities and deferred inflows of resources	45	14,754	87,791	—	45,170	11,606	—
Fund balances:							
Nonspendable	—	—	—	—	914	6,996	—
Restricted	—	—	86,608	—	219,144	—	20,647
Committed	12,475	105,179	—	—	278,969	143,336	—
Assigned	—	—	—	—	146,269	—	—
Unassigned (deficits)	—	—	—	—	—	(35,033)	—
Fund balances (deficits)	12,475	105,179	86,608	—	645,296	115,299	20,647
Total liabilities and fund balances	\$ 12,520	\$ 119,933	\$ 174,399	\$ —	\$ 690,466	\$ 126,905	\$ 20,647

See Independent Auditor's Report

Capital Projects					
General Capital Projects	Convention and Exhibition Center	Highway Capital Projects	Federal Highway Construction Program	Other	Total
\$ 144,602	\$ 8,393	—	\$ —	\$ 47	\$ 1,708,226
—	—	—	—	—	213,330
—	—	—	—	—	167,744
1,261	—	—	—	—	345,260
—	—	—	—	—	7,910
—	—	—	22	—	104,988
—	—	—	87,791	—	87,791
—	—	—	—	—	15,583
\$ 145,863	\$ 8,393	\$ —	\$ 87,813	\$ 47	\$ 2,650,832
\$ 343,770	\$ —	\$ —	\$ —	\$ 36	\$ 772,878
928	—	—	—	—	9,061
—	—	—	—	—	9
—	—	—	—	—	1,064
—	—	546	850	—	107,062
14,053	—	274,886	103,682	—	495,643
—	—	—	—	—	60,437
358,751	—	275,432	104,532	36	1,446,154
—	—	—	—	—	22,264
358,751	—	275,432	104,532	36	1,468,418
—	—	—	—	—	7,910
—	—	—	—	11	445,432
—	8,393	—	—	—	1,127,932
—	—	—	—	—	146,269
(212,888)	—	(275,432)	(16,719)	—	(545,129)
(212,888)	8,393	(275,432)	(16,719)	11	1,182,414
\$ 145,863	\$ 8,393	\$ —	\$ 87,813	\$ 47	\$ 2,650,832

Combining Statement of Revenues, Expenditures and Changes in Fund Balances

Other Governmental Funds
Fiscal Year Ended June 30, 2016
(Amounts in thousands)

	Special Revenue						
	Commonwealth Transportation	Federal Grants	Universal Health Care	Environmental	Community First Trust	Massachusetts Tourism	Gaming Control
REVENUES							
Taxes	\$ 1,303,227	\$ —	\$ 145,687	\$ 1,004	\$ —	\$ 57,105	\$ —
Assessments	23,151	—	423,430	—	—	—	—
Federal grants and reimbursements	—	3,656,320	22,427	6,815	48,430	—	—
Departmental	661,268	—	411,427	9,360	—	—	24,359
Miscellaneous	7,371	—	494	67	—	—	—
Total revenues	1,995,017	3,656,320	1,003,465	17,246	48,430	57,105	24,359
OTHER FINANCING SOURCES							
Bonds premium	—	—	—	—	—	—	—
Issuance of general and special obligation bonds	—	—	—	—	—	—	—
Issuance of current refunding bonds	—	—	—	—	—	—	—
Issuance of advance refunding bonds	—	—	—	—	—	—	—
Transfers in for debt service	—	—	—	—	—	—	—
Transfers in	—	—	889,857	190	—	—	—
Total other financing sources	—	—	889,857	190	—	—	—
Total revenues and other financing sources	1,995,017	3,656,320	1,893,322	17,436	48,430	57,105	24,359
EXPENDITURES							
Current:							
Judiciary	—	1,928	—	—	1	—	—
Inspector General	—	—	264	—	—	—	—
Governor and Lieutenant Governor	—	—	—	—	—	27	—
Secretary of the Commonwealth	—	901	—	—	—	—	—
Treasurer and Receiver-General	—	1,121	—	—	—	—	78
Auditor of the Commonwealth	—	—	—	—	—	—	—
Attorney General	—	16,707	—	—	—	—	976
District Attorney	—	1,868	—	—	3	—	—
Sheriff's Departments	—	3,605	—	—	—	—	—
Disabled Person Protection Commission	—	66	—	—	—	—	—
Board of Library Commissioners	—	2,915	—	—	—	—	—
Massachusetts Gaming Commission	—	—	—	—	—	—	22,541
Comptroller	—	—	—	—	—	—	—
Administration and Finance	125,000	5,447	25,345	105	—	—	—
Energy and Environmental Affairs	—	52,160	—	17,696	—	—	—
Health and Human Services	—	1,729,515	59,428	—	24,772	—	157
Massachusetts Department of Transportation	578,459	87	—	—	—	20	—
Executive Office of Education	—	1,006,155	—	—	—	—	—
Center for Health and Information Analysis	—	69	119	—	—	—	—
Public Safety and Homeland Security	—	144,382	—	—	—	—	19
Housing and Economic Development	—	464,600	—	—	80	22,384	—
Labor and Workforce development	—	138,503	—	—	—	—	—
Medicaid	—	—	1,687,131	—	2,322	—	—
Post employment benefits	42,218	—	—	—	—	—	—
Direct local aid	—	—	—	—	—	—	—
Capital outlay:							
Local aid	—	—	—	—	—	—	—
Capital acquisition and construction	—	—	—	—	—	—	—
Debt service	—	—	—	—	—	—	—
Principal on current refundings	—	—	—	—	—	—	—
Total expenditures	745,677	3,570,029	1,772,287	17,801	27,178	22,431	23,771
OTHER FINANCING USES							
Payments to refunding bond escrow agent	—	—	—	—	—	—	—
Transfers out	68,858	98,403	83,744	2,868	26,482	36,022	3,516
Transfers of appropriations	—	—	—	—	—	—	—
Transfers of bond proceeds	—	—	—	—	—	—	—
Transfers out for debt service	1,175,054	—	—	—	—	—	—
Total other financing uses	1,243,912	98,403	83,744	2,868	26,482	36,022	3,516
Total expenditures and other financing uses	1,989,589	3,668,432	1,856,031	20,669	53,660	58,453	27,287
Excess (deficiency) of revenues and other financing sources over expenditures and other financing uses	5,428	(12,112)	37,291	(3,233)	(5,230)	(1,348)	(2,928)
Fund balances (deficits) at beginning of year	68,449	35,228	254,005	20,904	62,948	7,534	8,401
Fund balances (deficits) at end of year	\$ 73,877	\$ 23,116	\$ 291,296	\$ 17,671	\$ 57,718	\$ 6,186	\$ 5,473

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Special Revenue									
Gaming Revenue	MBTA State & Local Contribution	Community Preservation Trust	Health Insurance Portability and Accountability Act	Division of Professional Licensure	Enhanced 911	Health Information Technology Trust	Regional Greenhouse Gas Initiative (RGGI) Auction Trust	Workforce Training Trust	Child Support Enforcement
\$ 64,356	\$ 988,005	\$ 25,509	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 23,651	\$ —
—	162,858	—	—	—	—	—	—	—	—
—	—	—	18,020	—	—	64,083	—	—	32,982
—	—	—	—	13,162	121,056	—	70,415	—	5,428
—	—	45	—	—	92	—	—	439	74
64,356	1,150,863	25,554	18,020	13,162	121,148	64,083	70,415	24,090	38,484
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	10,000	—	—	—	8,153	—	—	—
—	—	10,000	—	—	—	8,153	—	—	—
64,356	1,150,863	35,554	18,020	13,162	121,148	72,236	70,415	24,090	38,484
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	1,150,863	—	—	—	—	—	—	—	291
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	221
—	—	—	—	—	4,123	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	36,758	—	—	885	11,812	—	—	37,947
—	—	—	—	—	—	—	77,447	—	—
—	—	—	13,798	—	63	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	80,215	—	—	—	—
—	—	—	—	8,609	—	—	—	—	—
—	—	—	—	—	—	—	—	18,998	—
—	—	—	—	—	—	69,225	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	1,150,863	36,758	13,798	8,609	85,286	81,037	77,447	18,998	38,459
—	—	—	—	—	—	—	—	—	—
64,356	—	38	130	2,176	4,688	1,359	—	100	2,787
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
64,356	—	38	130	2,176	4,688	1,359	—	100	2,787
64,356	1,150,863	36,796	13,928	10,785	89,974	82,396	77,447	19,098	41,246
—	—	(1,242)	4,092	2,377	31,174	(10,160)	(7,032)	4,992	(2,762)
—	—	(3,815)	3,551	2,415	92,180	6,198	33,736	38,244	24,260
\$ —	\$ —	\$ (5,057)	\$ 7,643	\$ 4,792	\$ 123,354	\$ (3,962)	\$ 26,704	\$ 43,236	\$ 21,498

continued

Combining Statement of Revenues, Expenditures and Changes in Fund Balances

Other Governmental Funds
Fiscal Year Ended June 30, 2016
(Amounts in thousands)

	Special Revenue						
	Department of Industrial Accidents	Convention and Exhibition Center	Grant Anticipation Note Trust	Debt Defeasance Trust	Expendable Trust	Other	Debt Service
REVENUES							
Taxes	\$ —	\$ 135,664	\$ —	\$ —	\$ —	\$ 1,508	\$ —
Assessments	21,701	—	—	—	51,329	24,784	—
Federal grants and reimbursements	—	—	545,369	—	27,044	1,436	46,871
Departmental	2,252	—	—	—	49,936	64,525	—
Miscellaneous	11	194	177	94	508,609	19,670	—
Total revenues	23,964	135,858	545,546	94	636,918	111,923	46,871
OTHER FINANCING SOURCES							
Bonds premium	—	—	—	—	—	—	214,921
Issuance of general and special obligation bonds	—	—	—	—	—	—	—
Issuance of current refunding bonds	—	—	—	—	—	—	250,000
Issuance of advance refunding bonds	—	—	—	—	—	—	1,212,655
Transfers in for debt service	—	—	—	—	—	—	2,423,292
Transfers in	—	—	31,582	—	23,761	127,335	—
Total other financing sources	—	—	31,582	—	23,761	127,335	4,100,868
Total revenues and other financing sources	23,964	135,858	577,128	94	660,679	239,258	4,147,739
EXPENDITURES							
Current:							
Judiciary	—	—	—	—	224	351	—
Inspector General	—	—	—	—	—	—	—
Governor and Lieutenant Governor	—	—	—	—	—	—	—
Secretary of the Commonwealth	—	—	—	—	5	3,924	—
Treasurer and Receiver-General	—	—	—	—	104,512	20	3,546
Auditor of the Commonwealth	—	—	—	—	149	—	—
Attorney General	—	—	—	—	4,887	548	—
District Attorney	—	—	—	—	7,551	249	—
Sheriff's Departments	—	—	—	—	4,802	578	—
Disabled Person Protection Commission	—	—	—	—	—	—	—
Board of Library Commissioners	—	—	—	—	—	—	—
Massachusetts Gaming Commission	—	—	—	—	—	11,150	—
Comptroller	—	—	—	—	412	2,381	—
Administration and Finance	—	50,024	—	—	27,369	2,883	—
Energy and Environmental Affairs	—	—	—	—	52,347	30,181	—
Health and Human Services	—	—	—	—	127,249	21,896	—
Massachusetts Department of Transportation	—	—	—	—	81	—	—
Executive Office of Education	—	—	—	—	11,853	1,342	—
Center for Health and Information Analysis	—	—	—	—	365	—	—
Public Safety and Homeland Security	—	—	—	—	9,603	7,562	—
Housing and Economic Development	—	—	—	—	24,911	14,480	—
Labor and Workforce development	962	—	—	—	70,437	5,756	—
Medicaid	—	—	—	—	—	—	—
Post employment benefits	—	—	—	—	—	—	—
Direct local aid	—	—	—	—	—	105,033	—
Capital outlay:							
Local aid	—	—	—	—	—	—	—
Capital acquisition and construction	—	—	—	—	—	—	—
Debt service	—	—	—	—	—	—	2,470,117
Principal on current refundings	—	—	—	—	—	—	250,000
Total expenditures	962	50,024	—	—	446,757	208,334	2,723,663
OTHER FINANCING USES							
Payments to refunding bond escrow agent	—	—	—	—	—	—	1,424,030
Transfers out	22,927	60,000	500,929	94	153,068	14,305	—
Transfers of appropriations	—	—	—	—	1,316	—	—
Transfers of bond proceeds	—	—	—	—	—	—	—
Transfers out for debt service	—	54,511	76,049	113,200	—	5,226	—
Total other financing uses	22,927	114,511	576,978	113,294	154,384	19,531	1,424,030
Total expenditures and other financing uses	23,889	164,535	576,978	113,294	601,141	227,865	4,147,693
Excess (deficiency) of revenues and other financing sources over expenditures and other financing uses							
	75	(28,677)	150	(113,200)	59,538	11,393	46
Fund balances (deficits) at beginning of year	12,400	133,856	86,458	113,200	585,758	103,906	20,601
Fund balances (deficits) at end of year	\$ 12,475	\$ 105,179	\$ 86,608	\$ —	\$ 645,296	\$ 115,299	\$ 20,647

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Capital Projects					
General Capital Projects	Convention and Exhibition Center	Highway Capital Projects	Federal Highway Construction Program	Other	Total
\$ —	\$ —	\$ —	\$ —	\$ —	\$ 2,745,716
—	—	—	—	—	707,253
76,898	—	—	8,861	—	4,555,556
—	—	—	2,924	—	1,436,112
—	—	1,198	—	—	538,535
76,898	—	1,198	11,785	—	9,983,172
133,896	—	119,212	—	—	468,029
1,496,631	—	1,259,343	—	3,235	2,759,209
—	—	—	—	—	250,000
—	—	—	—	—	1,212,655
—	—	—	—	—	2,423,292
—	—	—	594,664	—	1,685,542
1,630,527	—	1,378,555	594,664	3,235	8,798,727
1,707,425	—	1,379,753	606,449	3,235	18,781,899
—	—	—	—	—	2,504
—	—	—	—	—	264
—	—	—	—	—	27
—	—	—	—	—	4,830
5,243	—	4,315	—	—	1,269,989
—	—	—	—	—	149
—	—	—	—	—	23,118
—	—	—	—	—	9,892
—	—	—	—	—	13,108
—	—	—	—	—	66
—	—	—	—	—	2,915
—	—	—	—	—	33,691
—	—	—	—	—	2,793
—	—	—	—	—	323,575
—	—	—	—	—	229,831
—	—	—	—	—	1,976,878
142,201	—	1,283,826	590,822	—	2,595,496
—	—	—	—	—	1,019,350
—	—	—	—	—	553
—	—	—	—	—	241,781
—	—	—	—	—	535,064
—	—	—	—	—	234,656
—	—	—	—	—	1,758,678
—	—	—	—	—	42,218
—	—	—	—	—	105,033
—	—	—	—	1,383	1,383
1,132,915	—	27,396	628	1,344	1,162,283
—	—	—	—	—	2,470,117
—	—	—	—	—	250,000
1,280,359	—	1,315,537	591,450	2,727	14,310,242
—	—	—	—	—	1,424,030
13,454	—	93,736	20	—	1,254,060
—	—	—	—	—	1,316
223,935	—	—	—	—	223,935
—	—	—	—	—	1,424,040
237,389	—	93,736	20	—	4,327,381
1,517,748	—	1,409,273	591,470	2,727	18,637,623
189,677	—	(29,520)	14,979	508	144,276
(402,565)	8,393	(245,912)	(31,698)	(497)	1,038,138
\$ (212,888)	\$ 8,393	\$ (275,432)	\$ (16,719)	\$ 11	\$ 1,182,414

Combining Statement of Revenues, Expenditures and Changes in Fund Balances - Budgetary Basis - Budget and Actual
Other Budgeted Nonmajor Governmental Funds

Fiscal Year Ended June 30, 2016

(Amounts in thousands)

	Commonwealth Transportation Fund				Environmental Funds			
	Original Budget	Final Budget	Actual	Variance	Original Budget	Final Budget	Actual	Variance
REVENUES AND OTHER FINANCING SOURCES								
Revenues:								
Taxes.....	\$ 1,301,426	\$ 1,301,426	\$ 1,301,318	\$ (108)	\$ 1,000	\$ 1,000	\$ 1,001	\$ 1
Assessments	23,153	23,153	23,398	245	—	—	—	—
Federal grants and reimbursements.....	—	—	—	—	5,800	5,800	8,824	3,024
Departmental	639,369	639,499	661,268	21,769	8,763	8,763	9,289	526
Miscellaneous.....	707	707	7,371	6,664	34	34	66	32
Total revenues.....	1,964,655	1,964,785	1,993,355	28,570	15,597	15,597	19,180	3,583
Other financing sources:								
Operating transfers in	96,000	96,000	—	(96,000)	170	170	190	20
Other fund deficit support	—	—	—	—	—	—	—	—
Total other financing sources.....	96,000	96,000	—	(96,000)	170	170	190	20
Total revenues and other financing sources.....	2,060,655	2,060,785	1,993,355	(67,430)	15,767	15,767	19,370	3,603
EXPENDITURES AND OTHER FINANCING USES								
Expenditures:								
Judiciary	—	—	—	—	—	—	—	—
Governor and Lieutenant Governor	—	—	—	—	—	—	—	—
Treasurer and Receiver-General.....	203,891	—	—	—	—	—	—	—
District Attorney.....	—	—	—	—	—	—	—	—
Administration and Finance	—	—	—	—	119	119	105	14
Energy and Environmental Affairs.....	—	—	—	—	18,477	18,476	17,696	781
Health and human services.....	—	—	—	—	—	—	—	—
Massachusetts Department of Transportation	187,000	187,000	171,417	15,583	—	—	—	—
Housing and Economic Development.....	—	—	—	—	—	—	—	—
Direct local aid	—	—	—	—	—	—	—	—
Post employment benefits	—	—	42,218	(42,218)	—	—	—	—
Debt service:								
Principal retirement	—	752,814	713,596	39,218	—	—	—	—
Interest and fiscal charges.....	—	483,116	461,458	21,658	—	—	—	—
Total expenditures.....	390,891	1,422,930	1,388,689	34,241	18,596	18,595	17,801	795
Other financing uses:								
Fringe benefit cost assessment	—	—	—	—	—	—	2,868	(2,868)
Operating transfers out	433,021	588,266	566,790	21,476	—	—	—	—
Other fund deficit support	—	—	35,089	(35,089)	—	—	—	—
Total other financing uses.....	433,021	588,266	601,879	(13,613)	—	—	2,868	(2,868)
Total expenditures and other financing uses.....	823,912	2,011,196	1,990,568	20,628	18,596	18,595	20,669	(2,073)
Excess/(deficiency) of revenues and other financing sources over/(under) expenditures and other financing uses	1,236,743	49,589	2,787	(46,802)	(2,829)	(2,828)	(1,299)	1,529
Fund balances/(deficit) at beginning of year	13,903	13,903	13,903	—	18,600	18,600	18,600	—
Fund balances/(deficit) at end of year	\$ 1,250,646	\$ 63,492	\$ 16,690	\$ (46,802)	\$ 15,771	\$ 15,772	\$ 17,301	\$ 1,529

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Community First Trust Fund				Massachusetts Tourism Fund				Public Safety Trust Fund			
Original Budget	Final Budget	Actual	Variance	Original Budget	Final Budget	Actual	Variance	Original Budget	Final Budget	Actual	Variance
\$ —	\$ —	\$ —	\$ —	\$ 33,900	\$ 33,900	\$ 56,772	\$ 22,872	\$ —	\$ —	\$ —	—
—	—	—	—	—	—	—	—	—	—	—	—
—	35,000	48,430	13,430	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	1,308	1,308
—	—	—	—	—	—	—	—	—	—	—	—
—	35,000	48,430	13,430	33,900	33,900	56,772	22,872	—	—	1,308	1,308
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	35,000	48,430	13,430	33,900	33,900	56,772	22,872	—	—	1,308	1,308
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	2	2	—	—	—	—	—	—	—	—	—
—	—	—	—	27	27	27	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	2	2	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	56,523	49,859	6,664	—	—	—	—	—	—	—	—
—	—	—	—	20	20	20	—	—	—	—	—
—	87	80	7	25,114	25,114	22,384	2,730	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	56,614	49,943	6,671	25,161	25,161	22,431	2,730	—	—	—	—
—	—	1,212	(1,212)	—	—	404	(404)	—	—	—	—
—	—	25,087	(25,087)	—	—	—	—	—	—	—	—
—	—	—	—	—	—	35,618	(35,618)	—	—	—	—
—	—	26,299	(26,299)	—	—	36,022	(36,022)	—	—	—	—
—	56,614	76,242	(19,628)	25,161	25,161	58,453	(33,292)	—	—	—	—
—	(21,614)	(27,812)	(6,198)	8,739	8,739	(1,681)	(10,420)	—	—	1,308	1,308
72,433	72,433	72,433	—	1,681	1,681	1,681	—	1,182	1,182	1,182	—
\$ 72,433	\$ 50,819	\$ 44,621	\$ (6,198)	\$ 10,420	\$ 10,420	\$ —	\$ (10,420)	\$ 1,182	\$ 1,182	\$ 2,490	\$ 1,308

continued

Combining Statement of Revenues, Expenditures and Changes in Fund Balances - Budgetary Basis - Budget and Actual
Other Budgeted Nonmajor Governmental Funds

Fiscal Year Ended June 30, 2016

(Amounts in thousands)

	Gaming Local Aid Fund				Totals			
	Original Budget	Final Budget	Actual	Variance	Original Budget	Final Budget	Actual	Variance
REVENUES AND OTHER FINANCING SOURCES								
Revenues:								
Taxes.....	\$ —	\$ —	\$ —	\$ —	\$ 1,336,326	\$ 1,336,326	\$ 1,359,091	\$ 22,765
Assessments.....	—	—	—	—	23,153	23,153	23,398	245
Federal grants and reimbursements	—	—	—	—	5,800	40,800	57,254	16,454
Departmental	—	—	—	—	648,132	648,262	671,865	23,603
Miscellaneous	—	—	—	—	741	741	7,437	6,696
Total revenues	—	—	—	—	2,014,152	2,049,282	2,119,045	69,763
Other financing sources:								
Operating transfers in	105,000	105,000	64,356	(40,644)	201,170	201,170	64,546	(136,624)
Other fund deficit support.....	—	—	40,677	40,677	—	—	40,677	40,677
Total other financing sources	105,000	105,000	105,033	33	201,170	201,170	105,223	(95,947)
Total revenues and other financing sources	105,000	105,000	105,033	33	2,215,322	2,250,452	2,224,268	(26,184)
EXPENDITURES AND OTHER FINANCING USES								
Expenditures:								
Judiciary.....	—	—	—	—	—	2	2	—
Governor and Lieutenant Governor	—	—	—	—	27	27	27	—
Treasurer and Receiver-General.....	—	—	—	—	203,891	—	—	—
District Attorney	—	—	—	—	—	2	2	—
Administration and Finance.....	—	—	—	—	119	119	105	14
Energy and Environmental Affairs.....	—	—	—	—	18,477	18,476	17,696	781
Health and human services	—	—	—	—	—	56,523	49,859	6,664
Massachusetts Department of Transportation.....	—	—	—	—	187,020	187,020	171,437	15,583
Housing and Economic Development	—	—	—	—	25,114	25,201	22,464	2,737
Direct Local Aid	—	105,034	105,033	1	—	105,034	105,033	1
Post employment benefits.....	—	—	—	—	—	—	42,218	(42,218)
Debt service:								
Principal retirement	—	—	—	—	—	752,814	713,596	39,218
Interest and fiscal charges	—	—	—	—	—	483,116	461,458	21,658
Total expenditures	—	105,034	105,033	1	434,648	1,628,334	1,583,897	44,438
Other financing uses:								
Fringe benefit cost assessment	—	—	—	—	—	—	4,484	(4,484)
Operating transfers out	—	—	—	—	433,021	588,266	591,877	(3,611)
Other fund deficit support.....	—	—	—	—	—	—	70,707	(70,707)
Total other financing uses	—	—	—	—	433,021	588,266	667,068	(78,802)
Total expenditures and other financing uses	—	105,034	105,033	1	867,669	2,216,600	2,250,965	(34,364)
Excess/(deficiency) of revenues and other financing sources over/(under) expenditures and other financing uses	105,000	(34)	—	34	1,347,653	33,852	(26,697)	(60,549)
Fund balances/(deficit) at beginning of year.....	—	—	—	—	107,799	107,799	107,799	—
Fund balances/(deficit) at end of year	\$ 105,000	\$ (34)	\$ —	\$ 34	\$ 1,455,452	\$ 141,651	\$ 81,102	\$ (60,549)



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Combining Budget to GAAP Reconciliation
Other Budgeted Nonmajor Governmental Funds

Fiscal Year Ended June 30, 2016

(Amounts in thousands)

	Commonwealth Transportation Fund	Environmental Funds	Community First Trust Fund
Total actual revenues - budgetary basis (pages 156-158).....	\$ 1,993,355	\$ 19,180	\$ 48,430
Adjustments:			
Taxes receivable, net	1,919	3	—
Tax refunds and abatements payable, net.....	(10)	—	—
Federal grants receivables, net	—	(2,008)	—
Departmental and other receivables, net	(247)	71	—
Total actual revenues - GAAP basis (pages 152-155).....	<u>\$ 1,995,017</u>	<u>\$ 17,246</u>	<u>\$ 48,430</u>
 Total actual other financing sources - budgetary basis (pages 156-158).....	 \$ —	 \$ 190	 \$ —
Adjustments:			
MassDOT transfers in is reclassified to revenues	—	—	—
Total actual other financing sources - GAAP basis (pages 152-155).....	<u>\$ —</u>	<u>\$ 190</u>	<u>\$ —</u>
 Total actual expenditures- budgetary basis (pages 156-158).....	 \$ 1,388,689	 \$ 17,801	 \$ 49,943
Adjustment:			
Due to component units accrual, net	(979)	—	—
Reclassification:			
MassDOT transfers out is reclassified to expenditures	533,021	—	—
Debt service principal and interest payments are reclassified to transfers out to the debt service fund	(1,175,054)	—	—
Nonbudgeted fund included on a GAAP basis.....	—	—	2,322
Reversal of prior year expenditures on a GAAP basis	—	—	(25,087)
Total actual expenditures - GAAP basis (pages 152-155).....	<u>\$ 745,677</u>	<u>\$ 17,801</u>	<u>\$ 27,178</u>
 Total actual other financing uses - budgetary basis (pages 156-158).....	 \$ 601,879	 \$ 2,868	 \$ 26,299
Reclassification:			
MassDOT transfers out is reclassified to expenditures	(533,021)	—	—
Debt service principal and interest payments are reclassified to transfers out to the debt service fund	1,175,054	—	—
Nonbudgeted fund included on a GAAP basis.....	—	—	183
Total actual other financing uses - GAAP basis (pages 152-155).....	<u>\$ 1,243,912</u>	<u>\$ 2,868</u>	<u>\$ 26,482</u>

* On a GAAP basis, the activity for the Gaming Local Aid fund is combined in the other special revenue funds in the combined statement of revenues, expenditures and changes in fund balance. The revenues, other financing sources, expenditures and other financing uses of the other special revenue funds are \$111,922, \$127,335, \$208,332 and \$19,531, respectively (all amounts in thousands).

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Massachusetts Tourism Fund	Public Safety Trust Fund	Gaming Local Aid Fund*	Totals
\$ 56,772	\$ 1,308	\$ —	\$ 2,119,045
366	—	—	2,288
(33)	—	—	(43)
—	—	—	(2,008)
—	—	—	(176)
<u>\$ 57,105</u>	<u>\$ 1,308</u>	<u>\$ —</u>	<u>\$ 2,119,106</u>
\$ —	\$ —	\$ 105,033	\$ 105,223
—	—	—	—
<u>\$ —</u>	<u>\$ —</u>	<u>\$ 105,033</u>	<u>\$ 105,223</u>
\$ 22,431	\$ —	\$ 105,033	\$ 1,583,897
—	—	—	(979)
—	—	—	533,021
—	—	—	(1,175,054)
—	—	—	2,322
—	—	—	(25,087)
<u>\$ 22,431</u>	<u>\$ —</u>	<u>\$ 105,033</u>	<u>\$ 918,120</u>
\$ 36,022	\$ —	\$ —	\$ 667,068
—	—	—	(533,021)
—	—	—	1,175,054
—	—	—	183
<u>\$ 36,022</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 1,309,284</u>

Combining Statement of Net Position Available for Post-Employment Benefits

Pension Trust Funds

June 30, 2016

(Amounts in thousands)

	Pension Trust Funds		OPEB Trust Fund	
	State Employees' PERS	Teacher's PERS	State Retiree Benefits	Total
ASSETS				
Cash and cash equivalents	\$ 77,226	\$ 84,500	\$ 78,106	\$ 239,832
Net investment in PRIT at fair value.....	23,661,539	24,766,990	787,942	49,216,471
Other receivables	115,772	87,479	—	203,251
Other assets.....	118,413	11,218	—	129,631
Total assets	23,972,950	24,950,187	866,048	49,789,185
LIABILITIES				
Accounts payable	1,794	8,115	5	9,914
Net position available for post-employment benefits	\$ 23,971,156	\$ 24,942,072	\$ 866,043	\$ 49,779,271

See Independent Auditor's Report

Combining Statement of Changes in Net Position Available for Post-Employment Benefits
Pension Trust Funds
Fiscal Year Ended June 30, 2016
(Amounts in thousands)

	Pension Trust Funds		OPEB Trust Fund	
	State Employees' PERS	Teacher's PERS	State Retiree Benefits	Total
ADDITIONS				
Contributions:				
Employer contributions - Commonwealth and MassDOT	\$ 660,818	\$ —	\$ 502,285	\$ 1,163,103
Non-employer contributions - Commonwealth	21,830	1,124,583	—	1,146,413
Employer and non-employer contributions - other	16,642	—	—	16,642
ERIP funding contribution - Commonwealth	29,093	—	—	29,093
Employee contributions	591,948	699,422	—	1,291,370
Boston teachers' contribution from Commonwealth	—	120,434	—	120,434
Other additions	397,077	82,362	1,313	480,752
Total contributions	1,717,408	2,026,801	503,598	4,247,807
Net investment gain/(loss):				
Investment gain/(loss)	545,612	570,073	18,686	1,134,371
Less: investment expense	(122,674)	(128,710)	(4,240)	(255,624)
Net Investment gain/(loss)	422,938	441,363	14,446	878,747
Total additions	2,140,346	2,468,164	518,044	5,126,554
DEDUCTIONS				
Administration	20,624	24,220	161	45,005
Retirement benefits and refunds	2,107,327	2,791,011	426,853	5,325,191
Payments to State Boston Retirement System	—	120,434	—	120,434
Other deductions	83,824	19,495	—	103,319
Total deductions	2,211,775	2,955,160	427,014	5,593,949
Net increase/(decrease)	(71,429)	(486,996)	91,030	(467,395)
Net position available for post-employment benefits at beginning of year	24,042,585	25,429,068	775,013	50,246,666
Net position available for post-employment benefits at end of year	\$ 23,971,156	\$ 24,942,072	\$ 866,043	\$ 49,779,271

See Independent Auditor's Report

Combining Statement of Net Position Held in Trust for Pool Participants

External Investment Trust Funds

June 30, 2016

(Amounts in thousands)

	Massachusetts Municipal Depository Trust	Pension Reserves Investment Trust	Total
ASSETS			
Cash and cash equivalents	\$ 3,170,718	\$ —	\$ 3,170,718
Short-term investments	39,467	—	39,467
Net investment in PRIT at fair value	—	11,476,334	11,476,334
Receivables, net of allowance for uncollectibles:			
Other receivables	1,264	—	1,264
Total assets	3,211,449	11,476,334	14,687,783
LIABILITIES			
Accounts payable	19,866	—	19,866
Net position held in trust for pool/pension participants	\$ 3,191,583	\$ 11,476,334	\$ 14,667,917

See Independent Auditor's Report

Combining Statement of Changes in Net Position Held in Trust for Pool Participants
External Investment Trust Funds
Fiscal Year Ended June 30, 2016
(Amounts in thousands)

	Massachusetts Municipal Depository Trust	Pension Reserves Investment Trust	Total
ADDITIONS			
Contributions:			
Other participant contributions	\$ —	\$ 848,243	\$ 848,243
Proceeds from sale of units	22,977,309	—	22,977,309
Total contributions	22,977,309	848,243	23,825,552
Net investment gain/(loss):			
Investment gain/(loss)	13,918	519,540	533,458
Less: investment expense	(1,469)	(289,627)	(291,096)
Net Investment gain/(loss)	12,449	229,913	242,362
Total additions	22,989,758	1,078,156	24,067,914
DEDUCTIONS			
Cost of units redeemed	22,172,892	—	22,172,892
Distributions to unit holders from net interest income	11,990	—	11,990
Retirement benefits and refunds	—	923,710	923,710
Total deductions	22,184,882	923,710	23,108,592
Net increase/(decrease)	804,876	154,446	959,322
Net position held in trust for pool/participants at beginning of year	2,386,707	11,321,888	13,708,595
Net position held in trust for pool/participants at end of year	\$ 3,191,583	\$ 11,476,334	14,667,917

See Independent Auditor's Report

Combining Statement of Changes in Assets and Liabilities

Agency Funds

Fiscal Year Ended June 30, 2016

(Amounts in thousands)

	Balance July 1, 2015	Additions	Deductions	Balance June 30, 2016
<u>Central Agency Funds</u>				
ASSETS				
Cash and cash equivalents	\$ 324,136	\$ 9,735,505	\$ (9,744,472)	\$ 315,169
Investments, restricted investments and annuity contracts	1,243,000	172,945	(221,000)	1,194,945
Taxes receivable.....	2,012	34,638	(2,012)	34,638
Other receivables	6,559	6,703	(6,559)	6,703
Total assets.....	\$ 1,575,707	\$ 9,949,791	\$ (9,974,043)	\$ 1,551,455
LIABILITIES				
Accounts payable	\$ 66,044	\$ 4,209,489	\$ (4,198,955)	\$ 76,578
Due to cities and towns	42,183	581,030	(576,459)	46,754
Due to federal government.....	—	88	(84)	4
Lottery prizes payable.....	1,243,000	172,945	(221,000)	1,194,945
Agency liabilities	224,480	3,638,808	(3,630,114)	233,174
Total liabilities.....	\$ 1,575,707	\$ 8,602,360	\$ (8,626,612)	\$ 1,551,455
<u>Court Escrow and Client Accounts</u>				
ASSETS				
Cash and cash equivalents	\$ 172,447	\$ 1,407,328	\$ (1,404,158)	\$ 175,617
Other receivables	121,279	126,565	(121,279)	126,565
Total assets.....	\$ 293,726	\$ 1,533,893	\$ (1,525,437)	\$ 302,182
LIABILITIES				
Accounts payable	\$ 153	\$ 1,990,649	\$ (1,990,637)	\$ 165
Agency liabilities	293,573	855,765	(847,321)	302,017
Total liabilities.....	\$ 293,726	\$ 2,846,414	\$ (2,837,958)	\$ 302,182
<u>Statutory Bonds and Deposits</u>				
ASSETS				
Cash and cash equivalents	\$ 100,852	\$ 619,377	\$ (623,920)	\$ 96,309
Investments, restricted investments and annuity contracts	576,862	35,663	(29,853)	582,672
Total assets.....	\$ 677,714	\$ 655,040	\$ (653,773)	\$ 678,981
LIABILITIES				
Agency liabilities	\$ 677,714	\$ 655,040	\$ (653,773)	\$ 678,981

See Independent Auditor's Report

Combining Statement Changes in Assets and Liabilities

Agency Funds

Fiscal Year Ended June 30, 2016

(Amounts in thousands)

	Balance July 1, 2015	Additions	Deductions	Balance June 30, 2016
<u>Total Agency Funds</u>				
ASSETS				
Cash and cash equivalents	\$ 597,435	\$ 11,762,210	\$ (11,772,550)	\$ 587,095
Investments, restricted investments and annuity contracts	1,819,862	208,608	(250,853)	1,777,617
Taxes receivable.....	2,012	34,638	(2,012)	34,638
Other receivables	127,838	133,268	(127,838)	133,268
Total assets.....	\$ 2,547,147	\$ 12,138,724	\$ (12,153,253)	\$ 2,532,618
LIABILITIES				
Accounts payable	\$ 66,197	\$ 6,200,138	\$ (6,189,592)	\$ 76,743
Due to cities and towns	42,183	581,030	(576,459)	46,754
Due to federal government.....	—	88	(84)	4
Lottery prizes payable.....	1,243,000	172,945	(221,000)	1,194,945
Agency liabilities	1,195,767	5,149,613	(5,131,208)	1,214,172
Total liabilities.....	\$ 2,547,147	\$ 12,103,814	\$ (12,118,343)	\$ 2,532,618

See Independent Auditor's Report

Combining Statement of Net Position

Nonmajor Component Units

June 30, 2016

(Amounts in thousands)

	Massachusetts Convention Center Authority	Massachusetts Development Finance Agency	Massachusetts Clean Energy Center	Massachusetts Technology Park Corporation	Massachusetts Housing Partnership	Economic Development Entities	Higher Education Foundations	Total
ASSETS AND DEFERRED OUTFLOWS								
Current assets:								
Cash and cash equivalents.....	\$ 17,764	\$ 12,822	\$ 23,042	\$ 168	\$ 22,409	\$ 75,865	\$ 23,539	\$ 175,609
Short-term investments	—	127,480	153,185	12,217	1,858	2,353	72,520	369,613
Restricted cash and investments.....	587	22,584	37,023	30,830	51,171	93,403	970	236,568
Receivables, net of allowance for uncollectibles:								
Federal grants and reimbursements	—	—	—	—	—	142	—	142
Loans	347	46,494	1,064	—	26,954	17,463	—	92,322
Other receivables	15,627	14,237	2,839	935	2,572	2,933	8,298	47,441
Due from primary government.....	14,492	1,940	—	8,556	—	33,861	193	59,042
Inventory	—	—	—	—	—	68	—	68
Other current assets	1,939	1,011	527	451	—	1,182	563	5,673
Total current assets	50,756	226,568	217,680	53,157	104,964	227,270	106,083	986,478
Noncurrent assets:								
Cash and cash equivalents - restricted.....	—	14,419	—	8,481	—	—	1,475	24,375
Long - term investments.....	—	82,332	—	—	—	—	577,892	660,224
Restricted investments.....	—	—	—	—	—	—	43,598	43,598
Accounts receivables, net	—	1,936	—	—	—	2,412	10,001	14,349
Loans receivables, net	16,415	58,781	—	—	517,845	40,530	—	633,571
Non-depreciable capital assets	175,384	15,813	3,043	175	—	—	15,324	209,739
Depreciable capital assets, net.....	591,960	92,418	121,714	78,274	—	13,038	27,519	924,923
Other noncurrent assets	—	8,092	—	—	893	2,360	3,018	14,363
Total noncurrent assets	783,759	273,791	124,757	86,930	518,738	58,340	678,827	2,525,142
Deferred outflows of resources:								
Deferred outflows related to pension	8,898	—	—	—	—	—	—	8,898
Total assets and deferred outflows	843,413	500,359	342,437	140,087	623,702	285,610	784,910	3,520,518
LIABILITIES AND DEFERRED INFLOWS								
Current liabilities:								
Accounts payable and other liabilities	10,729	9,211	9,572	14,656	548	40,216	32,800	117,732
Accrued payroll	—	—	—	—	835	486	—	1,321
Compensated absences.....	1,005	927	—	—	—	608	—	2,540
Accrued interest payable	—	—	—	—	1,698	—	22	1,720
Due to primary government	—	505	—	—	—	—	793	1,298
Unearned revenue.....	10,607	—	—	361	—	29,171	1,666	41,805
Bonds, notes payable and other obligations	—	360	—	—	20,677	6,760	1,117	28,914
Total current liabilities	22,341	11,003	9,572	15,017	23,758	77,241	36,398	195,330
Noncurrent liabilities:								
Compensated absences.....	1,377	—	—	—	—	115	—	1,492
Accrued interest payable	—	272	—	—	—	—	—	272
Due to primary government	—	9,004	—	—	—	—	—	9,004
Unearned revenue.....	1,083	2,610	—	—	27,801	113	—	31,607
Bonds, notes payable and other obligations	—	6,394	—	—	506,043	74,226	12,674	599,337
Net pension liability	37,648	—	—	—	—	—	—	37,648
Net OPEB liability	9,424	—	—	—	—	—	—	9,424
Other noncurrent liabilities.....	11,408	5,954	—	—	15,160	774	3,713	37,009
Total noncurrent liabilities	60,940	24,234	—	—	549,004	75,228	16,387	725,793
Deferred inflows of resources:								
Deferred inflows related to pension	1,335	—	—	—	—	—	—	1,335
Total liabilities and deferred inflows	84,616	35,237	9,572	15,017	572,762	152,469	52,785	922,458
NET POSITION								
Net investment in capital assets	767,345	91,689	124,757	78,449	826	15,351	30,733	1,109,150
Restricted for:								
Economic development financing.....	—	162,152	—	—	—	14,191	—	176,343
Other purposes.....	587	—	37,022	33,603	20,321	45,238	635,985	772,756
Unrestricted.....	(9,135)	211,281	171,086	13,018	29,793	58,361	65,407	539,811
Total net position	\$ 758,797	\$ 465,122	\$ 332,865	\$ 125,070	\$ 50,940	\$ 133,141	\$ 732,125	\$ 2,598,060

See Independent Auditor's Report

Combining Statement of Revenues, Expenses and Changes in Net Position

Nonmajor Component Units

Fiscal Year Ended June 30, 2016

(Amounts in thousands)

	Massachusetts Convention Center Authority	Massachusetts Development Finance Agency	Massachusetts Clean Energy Center	Massachusetts Technology Park Corporation	Massachusetts Housing Partnership	Economic Development Entities	Higher Education Foundations	Total
Operating revenues:								
Charges for services	\$ 67,420	\$ 57,021	\$ 2,769	\$ 2,471	\$ 8,071	\$ 127,576	\$ 17,297	\$ 282,625
Other	3,207	2,959	22,785	26,971	6,857	986	14,591	78,356
Total operating revenues	70,627	59,980	25,554	29,442	14,928	128,562	31,888	360,981
Operating expenses:								
Cost of services	62,231	45,506	33,847	25,275	7,080	131,758	—	305,697
Administration costs	35,064	13,228	10,033	—	5,603	14,414	49,415	127,757
Depreciation	51,116	7,104	3,386	7,095	138	991	1,351	71,181
Total operating expenses	148,411	65,838	47,266	32,370	12,821	147,163	50,766	504,635
Operating income/(loss)	(77,784)	(5,858)	(21,712)	(2,928)	2,107	(18,601)	(18,878)	(143,654)
Nonoperating revenues/(expenses):								
Operating grants	28,681	417	5,305	—	—	22,397	—	56,800
Interest income/(loss)	763	2,202	—	215	416	259	(36,187)	(32,332)
Other nonoperating revenue/(expense)	(19,500)	(748)	1,469	—	—	(2,036)	49,130	28,315
Nonoperating revenues/(expenses), net ..	9,944	1,871	6,774	215	416	20,620	12,943	52,783
Income/(loss) before contributions	(67,840)	(3,987)	(14,938)	(2,713)	2,523	2,019	(5,935)	(90,871)
Capital contributions	20,778	(8,117)	—	—	—	1,211	—	13,872
Change in net position/(deficits)	(47,062)	(12,104)	(14,938)	(2,713)	2,523	3,230	(5,935)	(76,999)
Net position - beginning	805,859	477,226	347,803	127,783	48,417	129,911	738,060	2,675,059
Net position - ending	\$ 758,797	\$ 465,122	\$ 332,865	\$ 125,070	\$ 50,940	\$ 133,141	\$ 732,125	\$ 2,598,060

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Statistical Section

(Unaudited)

Schedule of Net Position by Component – Last Ten Fiscal Years
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Massachusetts General Information

Statistical Section Narrative and Table of Contents

This part of the Commonwealth of Massachusetts' comprehensive annual financial report presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information says about the Commonwealth's overall financial health.

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Financial Trends

These schedules contain trend information to help the reader understand how the Commonwealth's financial performance and fiscal health has changed over time. The schedules are presented for the last ten fiscal years, except where noted. Schedules included are:

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Schedule of Net Position by Component

Last Ten Fiscal Years

(Amounts in thousands)

	2016	2015*	2014*	2013	2012
Governmental activities					
Net investment in capital asset	\$ (1,067,098)	\$ (768,411)	\$ (502,370)	\$ (592,483)	\$ (849,338)
Restricted	1,538,662	1,541,566	1,455,704	1,386,416	1,456,715
Unrestricted	(59,111,509)	(55,626,596)	(53,381,910)	(26,733,809)	(24,905,165)
Total governmental activities net position...	\$ (58,639,945)	\$ (54,853,441)	\$ (52,428,576)	\$ (25,939,876)	\$ (24,297,788)
Business-type activities					
Net investment in capital assets	\$ 3,311,658	\$ 3,055,444	\$ 2,794,845	\$ 2,605,263	\$ 2,366,038
Restricted	1,745,840	1,539,785	1,590,545	1,209,630	1,576,865
Unrestricted	678,667	697,056	675,796	1,026,230	969,309
Total business-type activities net position ...	\$ 5,736,165	\$ 5,292,285	\$ 5,061,186	\$ 4,841,123	\$ 4,912,212
Commonwealth net position					
Net investment in capital assets	\$ 2,244,560	\$ 2,287,033	\$ 2,292,475	\$ 2,012,780	\$ 1,516,700
Restricted	3,284,502	3,081,351	3,046,249	2,596,046	3,033,580
Unrestricted	(58,432,842)	(54,929,540)	(52,706,114)	(25,707,579)	(23,935,856)
Total Commonwealth net position	\$ (52,903,780)	\$ (49,561,156)	\$ (47,367,390)	\$ (21,098,753)	\$ (19,385,576)

*Restated

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2011	2010*	2009*	2008*	2007*
\$ (722,469)	\$ (885,593)	\$ 189,913	\$ 446,666	\$ 489,432
1,520,702	1,403,877	1,377,951	1,413,968	1,271,051
(23,631,098)	(22,891,629)	(13,721,519)	(11,022,084)	(11,357,260)
\$ (22,832,865)	\$ (22,373,345)	\$ (12,153,655)	\$ (9,161,450)	\$ (9,596,777)
\$ 2,026,223	\$ 1,767,434	\$ 1,698,825	\$ 1,562,002	\$ 1,392,363
1,364,646	1,148,751	1,609,145	2,390,206	2,295,507
978,043	857,263	621,952	644,363	645,211
\$ 4,368,912	\$ 3,773,448	\$ 3,929,922	\$ 4,596,571	\$ 4,333,081
\$ 1,303,754	\$ 881,841	\$ 1,888,738	\$ 2,008,668	\$ 1,881,795
2,885,348	2,552,628	2,987,096	3,804,174	3,566,558
(22,653,055)	(22,034,366)	(13,099,567)	(10,377,721)	(10,712,049)
\$ (18,463,953)	\$ (18,599,896)	\$ (8,223,733)	\$ (4,564,879)	\$ (5,263,696)

Changes in Net Position
Last Ten Fiscal Years
(Amounts in thousands)

	2016	2015	2014 (1)	2013 (1)	2012 (1)
EXPENSES					
Governmental Activities:					
General government	\$ 2,616,051	\$ 2,703,519	\$ 2,521,394	\$ 2,571,685	\$ 2,384,142
Judiciary	1,154,038	1,026,429	1,007,234	983,314	936,113
Direct local aid	5,598,687	5,469,412	5,353,521	5,179,104	4,991,532
Medicaid	16,825,110	15,086,742	14,034,862	12,286,342	11,708,397
Group health insurance	1,632,703	1,657,018	1,403,590	1,282,661	1,218,079
Energy and environmental	1,069,510	671,801	615,854	524,632	568,898
Housing and economic development	1,367,957	1,314,980	1,289,156	1,250,008	1,246,213
Health and human services	7,912,817	7,605,180	7,308,295	7,737,736	7,619,987
Transportation and public works	2,711,910	2,689,975	2,379,178	1,868,020	1,759,589
Early elementary and secondary education	5,420,052	4,654,161	4,714,555	4,493,537	4,336,326
Public safety and homeland security	2,746,612	2,486,107	2,451,881	2,391,982	2,323,452
Labor and workforce development	324,678	309,091	352,454	385,757	472,044
Lottery	4,299,592	4,109,611	3,980,980	3,982,700	3,877,305
Interest (unallocated)	1,250,004	1,263,218	1,197,709	1,206,542	1,202,772
Total governmental activities	54,929,721	51,047,244	48,610,664	46,144,020	44,644,849
Business-type Activities:					
Unemployment compensation	1,499,811	1,598,084	2,036,431	2,718,447	3,466,500
Higher Education:					
University of Massachusetts	3,151,215	2,809,062	2,925,013	2,759,488	2,684,039
State Universities	1,002,577	994,341	922,383	864,161	851,118
Community Colleges	928,067	891,906	852,946	814,245	801,038
Total business-type activities	6,581,670	6,293,393	6,736,773	7,156,341	7,802,695
Total Commonwealth expenses	\$ 61,511,391	\$ 57,340,637	\$ 55,347,437	\$ 53,300,361	\$ 52,447,544
REVENUES					
Program Revenues:					
Governmental Activities:					
Charges for services:					
General government	\$ 565,434	\$ 634,289	\$ 361,105	\$ 352,291	\$ 458,320
Judiciary	100,568	105,521	108,766	111,384	114,170
Medicaid	841,697	1,052,170	1,226,108	471,539	297,566
Group health insurance	799,011	755,712	660,359	619,982	495,377
Energy and environmental	289,738	253,856	262,339	228,019	214,340
Housing and economic development	173,941	164,438	165,365	150,690	142,320
Health and human services	1,224,967	405,710	483,080	1,143,551	931,535
Transportation and public works	577,292	577,430	530,853	567,348	505,842
Early elementary and secondary education	7,508	7,649	10,067	6,748	6,783
Public safety and homeland security	284,264	256,596	228,730	218,643	205,546
Labor and workforce development	38,581	175,130	150,394	246,577	237,772
Lottery	5,405,128	5,193,545	5,049,536	5,041,329	4,940,151
Total Charges for services	10,308,129	9,582,046	9,236,702	9,158,101	8,549,722
Operating grants and contributions	15,158,087	13,950,227	13,121,648	12,836,122	12,909,908
Capital grants and contributions	85,759	81,475	30,699	18,726	79,733
Total governmental activities	25,551,975	23,613,748	22,389,049	22,012,948	21,539,363
Business-type Activities:					
Charges for services:					
Unemployment Compensation	1,611,096	1,492,067	1,897,495	1,923,476	1,982,602
Higher Education:					
University of Massachusetts	1,875,144	1,602,043	1,697,585	1,640,296	1,519,496
State Universities	616,025	583,669	558,170	533,347	523,979
Community Colleges	274,252	266,956	270,512	281,428	275,778
Operating grants and contributions	891,823	936,917	1,347,423	1,791,196	2,525,342
Capital grants and contributions	265,714	206,128	122,081	123,396	162,271
Total business-type activities	5,534,054	5,087,780	5,893,266	6,293,139	6,989,468
Total Commonwealth program revenues	\$ 31,086,029	\$ 28,701,528	\$ 28,282,315	\$ 28,306,087	\$ 28,528,831
General Revenues and Other Changes in Net Position (all types consolidated):					
Governmental Activities:					
Taxes (all types)	\$ 25,676,303	\$ 25,209,826	\$ 23,319,168	\$ 22,599,332	\$ 21,403,426
Investment earnings and miscellaneous	1,160,994	1,251,193	1,131,754	985,713	1,393,094
Transfers	(1,246,055)	(1,429,174)	(1,205,141)	(1,096,061)	(1,155,955)
Transfers to/from MassDOT	—	—	—	—	—
Total governmental activities	25,591,242	25,031,845	23,245,781	22,488,984	21,640,565
Business-type Activities:					
Investment earnings and miscellaneous	\$ 245,441	\$ 7,536	\$ 306,690	\$ 271,832	\$ 214,056
Other losses	—	—	—	—	—
Transfers	1,246,055	1,429,174	1,205,141	1,096,061	1,155,955
Total business-type activities	1,491,496	1,436,710	1,511,831	1,367,893	1,370,011
Total Commonwealth general revenues	\$ 27,082,738	\$ 26,468,555	\$ 24,757,612	\$ 23,856,877	\$ 23,010,576
CHANGES IN NET POSITION					
Governmental activities	\$ (3,786,504)	\$ (2,401,651)	\$ (2,975,834)	\$ (1,642,088)	\$ (1,464,923)
Business-type activities	443,880	231,099	668,324	504,691	556,784
Restatements	—	—	—	—	—
Total changes in net position including restatements	\$ (3,342,624)	\$ (2,170,552)	\$ (2,307,510)	\$ (1,137,397)	\$ (908,139)

(1) - Prior year amounts were reclassified to conform to current year presentation.

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2011 (1)	2010	2009	2008	2007
\$ 2,312,037	\$ 2,317,016	\$ 2,591,953	\$ 2,329,454	\$ 2,197,089
1,000,902	991,310	1,089,569	1,003,754	849,719
4,845,738	5,030,363	5,210,451	5,118,858	5,081,359
12,124,261	10,677,999	10,842,549	9,769,893	9,044,420
1,113,544	1,092,178	977,565	828,297	1,033,796
689,258	305,233	407,289	541,840	487,917
1,365,368	1,291,142	1,036,891	900,577	519,142
7,139,948	7,110,366	7,326,979	6,753,620	6,408,043
2,270,136	2,062,054	1,319,110	1,202,748	1,270,759
3,585,958	3,806,149	3,574,455	2,854,730	1,888,271
2,295,561	2,292,163	2,462,398	2,118,161	1,758,283
498,560	470,878	463,901	342,907	640,614
3,661,834	3,649,396	3,693,318	3,910,362	3,689,221
1,177,569	1,090,471	1,116,278	1,152,162	1,079,551
44,080,673	42,186,717	42,112,704	38,827,362	35,948,184
4,388,360	5,435,611	3,475,027	1,554,885	1,430,130
2,865,015	2,640,134	2,474,797	2,274,312	2,233,634
834,453	762,043	736,972	733,842	624,470
772,883	716,526	671,923	685,235	627,400
8,860,711	9,554,314	7,358,719	5,248,274	4,915,634
\$ 52,941,384	\$ 51,741,031	\$ 49,471,424	\$ 44,075,636	\$ 40,863,818
\$ 443,869	\$ 464,592	\$ 436,344	\$ 414,614	\$ 564,347
120,293	128,198	123,819	124,542	118,652
258,032	185,463	180,380	176,471	172,136
431,078	349,870	230,456	209,008	151,604
270,449	214,269	226,754	162,639	168,789
142,387	221,340	178,011	185,019	1,892
896,328	797,929	718,628	601,483	538,543
502,004	517,045	494,733	477,420	461,217
6,645	9,661	15,728	10,766	8,042
193,983	202,427	175,069	153,641	126,962
142,731	38,319	37,728	31,758	187,256
4,630,205	4,626,777	4,643,592	4,905,509	4,656,110
8,038,003	7,755,891	7,461,243	7,452,873	7,155,550
14,217,481	12,771,164	12,059,019	9,271,936	8,849,046
168,912	779,403	853,221	484,172	487,365
22,424,397	21,306,458	20,373,482	17,208,980	16,491,961
1,945,801	1,727,964	1,671,098	1,587,543	1,698,249
1,685,386	1,527,880	1,419,932	1,160,513	1,194,393
530,078	479,900	442,685	400,369	287,195
250,341	235,865	219,986	204,190	190,808
3,500,210	4,020,351	1,721,199	710,974	746,385
42,819	48,684	56,377	35,893	90,115
7,954,635	8,040,644	5,531,277	4,099,482	4,207,145
\$ 30,379,032	\$ 29,347,102	\$ 25,904,759	\$ 21,308,462	\$ 20,699,106
\$ 21,066,430	\$ 19,034,227	\$ 18,499,273	\$ 21,174,430	\$ 20,001,189
991,230	1,474,995	1,489,018	2,057,309	1,318,008
(860,904)	(864,697)	(1,070,652)	(1,178,030)	(1,167,367)
—	(8,983,955)	—	—	—
21,196,756	10,660,570	18,917,639	22,053,709	20,151,830
\$ 652,489	\$ 504,404	\$ 83,850	\$ 234,252	\$ 225,793
(10,746)	(12,125)	(11,530)	—	—
860,904	864,697	1,070,652	1,178,030	1,167,367
1,502,647	1,356,976	1,142,972	1,412,282	1,393,160
\$ 22,699,403	\$ 12,017,546	\$ 20,060,611	\$ 23,465,991	\$ 21,544,990
\$ (459,521)	\$ (10,219,688)	\$ (2,821,583)	\$ 435,327	\$ 695,608
596,571	(156,694)	(684,470)	263,490	684,671
—	—	(152,800)	—	—
\$ 137,050	\$ (10,376,382)	\$ (3,658,853)	\$ 698,817	\$ 1,380,279

Fund Balances, Governmental Funds

Last Ten Fiscal Years

(Modified accrual basis of accounting)

(Amounts in thousands)

	2016	2015	2014	2013	2012
Total Unreserved general fund.....	\$ —	\$ —	\$ —	\$ —	\$ —
All Other Governmental Funds					
Reserved.....	—	—	—	—	—
Unreserved:					
Special Revenue Funds	—	—	—	—	—
Capital Projects Funds.....	—	—	—	—	—
Permanent Trust Funds.....	—	—	—	—	—
Total Unreserved.....	—	—	—	—	—
Total all other governmental funds.....	—	—	—	—	—
Total governmental fund balances.....	\$ —	\$ —	\$ —	\$ —	\$ —

* 2010 has been restated for GASB 54 presentation. Years prior have not been restated.

Fund balances GASB 54 :

Nonspendable	\$ 7,910	\$ 2,318	\$ 1,116	\$ 914	\$ 914
Restricted	1,369,761	1,790,143	1,517,555	1,557,928	2,195,287
Committed	2,421,647	2,375,021	2,249,906	2,324,228	2,404,158
Assigned	845,567	576,632	510,353	595,085	574,621
Unassigned.....	628,420	561,105	340,505	391,795	1,143,978
Total governmental fund balances.....	\$ 5,273,305	\$ 5,305,218	\$ 4,619,434	\$ 4,869,950	\$ 6,318,958

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2011	2010*	2009*	2008*	2007*
\$ —	\$ —	\$ 1,734,822	\$ 3,171,278	\$ 4,899,154
—	—	1,401,985	1,809,058	1,496,094
—	—	2,044,674	2,437,897	1,587,596
—	—	(125,138)	(360,570)	(251,985)
—	—	5,000	5,000	5,000
—	—	1,924,536	2,082,327	1,340,611
—	—	3,326,521	3,891,385	2,836,705
<u>\$ —</u>	<u>\$ —</u>	<u>\$ 5,061,343</u>	<u>\$ 7,062,663</u>	<u>\$ 7,735,859</u>

\$ 914	\$ 5,914
1,675,055	1,905,749
2,020,009	2,166,175
750,462	156,483
821,188	351,395
<u>\$ 5,267,628</u>	<u>\$ 4,585,716</u>

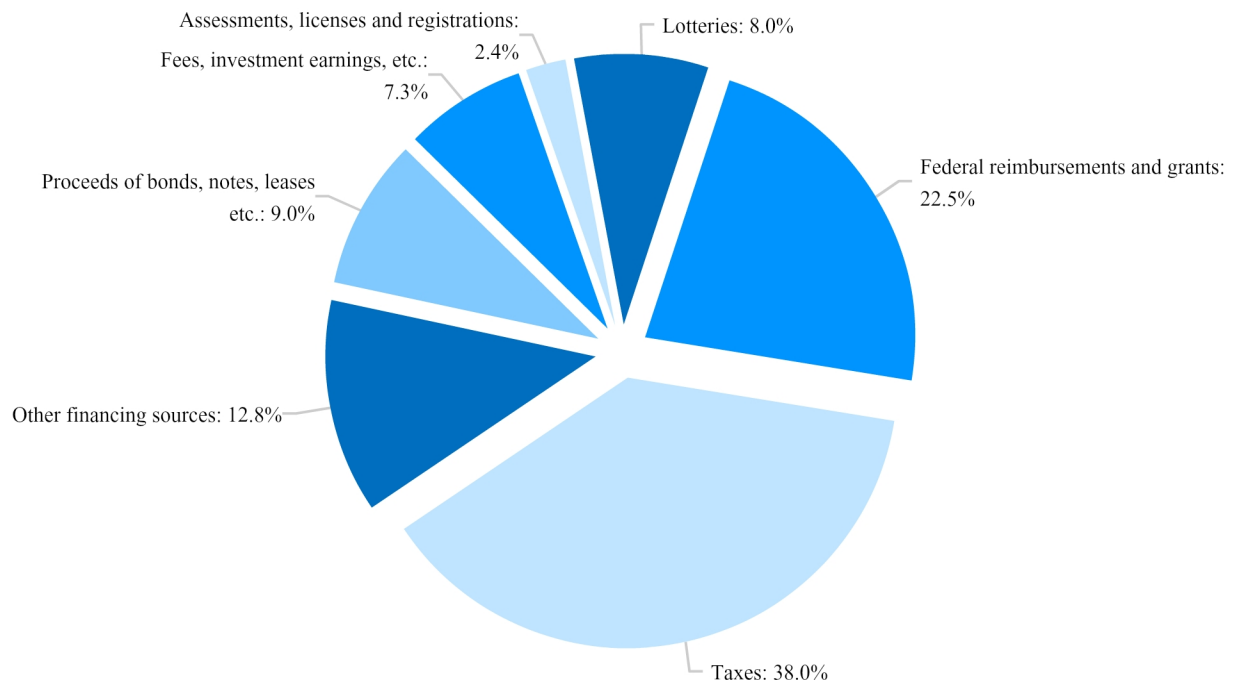
Ten-Year Schedule of Revenues and Other Financing Sources
All Governmental Fund Types - Fund Perspective
(Modified Accrual Basis of Accounting)

(Amounts in millions)

		%		%		%		%		%
	2016	Total	2015	Total	2014	Total	2013	Total	2012	Total
Taxes.....	\$ 25,746	38.0	\$ 25,258	41.7	\$ 23,786	41.6	\$ 22,391	40.5	\$ 21,533	39.6
Federal reimbursements.....	11,577	17.1	10,462	17.2	9,417	16.5	8,981	16.2	8,934	16.4
Federal grants	3,656	5.4	3,583	5.9	3,730	6.5	3,887	7.0	4,051	7.5
Lotteries.....	5,406	8.0	5,194	8.6	5,049	8.8	5,042	9.1	4,944	9.1
Assessments.....	1,104	1.6	1,026	1.7	1,080	1.8	1,093	2.0	1,024	1.9
Motor vehicle licenses and registrations	546	0.8	546	0.9	495	0.9	487	0.9	474	0.9
Fees, investment earnings, etc.....	4,957	7.3	4,540	7.5	4,152	7.3	3,750	6.8	3,823	7.0
Issuance of general and special obligation bonds.....	3,969	5.9	3,761	6.2	2,360	4.1	1,471	2.7	2,902	5.3
Issuance of refunding bonds.....	1,463	2.2	632	1	1,236	2.2	1,913	3.5	388	0.7
Bond premiums	613	0.9	379	0.6	193	0.3	398	0.7	260	0.5
Proceeds of capital lease.....	31	—	31	0.1	11	—	1	—	4	—
Other financing sources.....	8,682	12.8	5,247	8.6	5,701	10.0	5,876	10.6	6,033	11.1
Total revenues and other financing sources.....	<u>\$ 67,750</u>	<u>100.0</u>	<u>\$ 60,659</u>	<u>100.0</u>	<u>\$ 57,210</u>	<u>100.0</u>	<u>\$ 55,290</u>	<u>100.0</u>	<u>\$ 54,370</u>	<u>100.0</u>

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**Apportionment of Revenues by Source -
Fiscal Year Ended June 30, 2016**



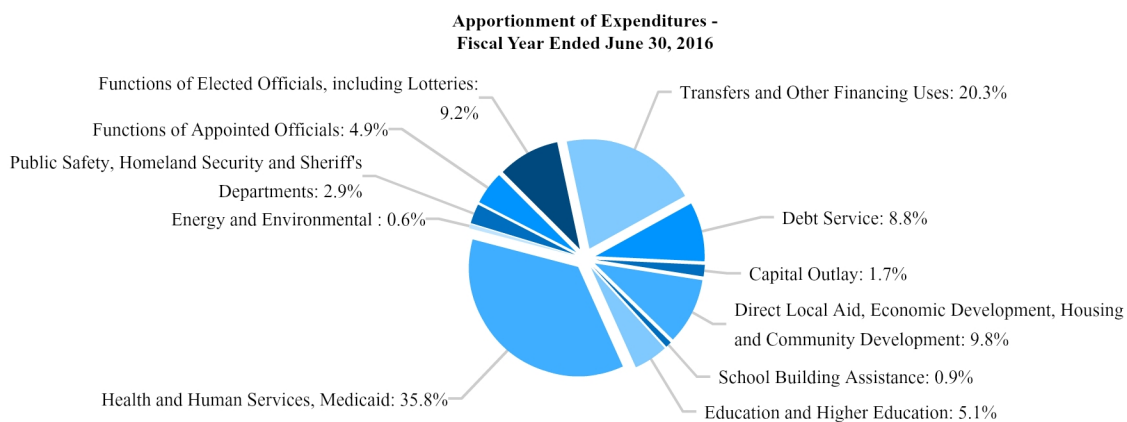
		%		%		%		%		%
	2011	Total	2010	Total	2009	Total	2008	Total	2007	Total
\$	20,854	38.7	\$ 18,991	37.3	\$ 18,354	36.9	\$ 21,120	42.1	\$ 19,985	40.4
	10,066	18.8	9,453	18.5	9,392	18.9	7,037	14	6,847	13.8
	4,311	8.0	4,097	8.0	3,510	7	2,681	5.4	2,489	5
	4,631	8.6	4,628	9.1	4,650	9.3	4,915	9.8	4,670	9.4
	980	1.8	965	2.0	929	1.9	858	1.8	860	1.7
	461	0.9	463	0.9	383	0.8	376	0.7	380	0.8
	3,246	6.0	3,365	6.6	3,204	6.4	3,546	7.1	2,875	5.8
	2,233	4.1	2,419	4.7	2,042	4.1	1,281	2.6	3,104	6.3
	888	1.6	538	1.1	390	0.8	—	—	1,428	2.9
	130	0.2	16	0.0	99	0.2	25	—	129	0.3
	12	—	17	0.0	18	—	17	—	21	—
	6,086	11.3	6,027	11.8	6,817	13.7	8,280	16.5	6,743	13.6
\$	53,898	100.0	\$ 50,979	100.0	\$ 49,788	100.0	\$ 50,136	100.0	\$ 49,531	100.0

Ten-Year Schedule of Expenditures and Other Financing Uses by Secretariat
All Governmental Fund Types - Fund Perspective
(Modified Accrual Basis of Accounting)
(Amounts in millions)

	2016	% Total	2015	% Total	2014	% Total	2013	% Total	2012	% Total
Legislature	\$ 61	0.1	\$ 61	0.1	\$ 56	0.1	\$ 57	0.1	\$ 58	0.1
Judiciary	880	1.3	845	1.4	816	1.4	792	1.4	757	1.4
Inspector General	5	—	5	—	6	—	6	—	3	—
Governor and Lieutenant Governor	7	—	6	—	5	—	6	—	7	—
Secretary of the Commonwealth	44	0.1	50	0.1	51	0.1	49	0.1	41	0.1
Treasurer and Receiver-General	5,799	8.7	5,602	9.7	5,327	9.5	5,307	9.5	5,282	9.9
Auditor of the Commonwealth	19	—	18	—	18	—	18	—	17	—
Attorney General	67	0.1	41	0.1	88	0.2	76	0.1	55	0.1
Ethics Commission	2	—	2	—	2	—	2	—	2	—
District Attorney	124	0.2	119	0.2	115	0.2	115	0.2	110	0.2
Office of Campaign and Political Finance	2	—	3	—	1	—	1	—	1	—
Sheriff's Department	616	0.9	593	1	565	1.0	541	1.0	529	1.0
Disabled Persons Protection Commission	3	—	3	—	2	—	2	—	2	—
Board of Library Commissioners	28	—	28	—	25	—	25	—	24	—
Massachusetts Gaming Commission	34	0.1	23	—	23	—	14	—	1	—
Comptroller	17	—	16	—	16	—	14	—	14	—
Administration and finance	2,416	3.6	2,490	4.2	2,296	4.0	2,295	4.1	1,949	3.7
Energy and environmental	436	0.6	417	0.7	410	0.7	365	0.6	351	0.7
Housing and communities development	—	—	—	—	—	—	—	—	—	—
Early education and care	—	—	—	—	—	—	—	—	—	—
Health and human services	7,402	10.9	7,211	12	6,957	12.1	7,384	13.1	7,301	13.6
Transportation and public works	—	—	—	—	—	—	—	—	—	—
Massachusetts department of transportation	2,595	3.8	2,611	4.4	2,296	4.0	1,785	3.1	1,679	3.1
Office of the Child Advocate	1	—	—	—	—	—	—	—	—	—
Executive office of education*	3,478	5.1	3,320	5.5	3,201	5.6	3,008	5.3	3,069	5.8
Center for Health and Information Analysis	27	—	28	—	26	—	9	—	—	—
Massachusetts school building assistance	626	0.9	732	1.2	869	1.5	1,037	1.8	975	1.8
Higher education	—	—	—	—	—	—	—	—	—	—
Public safety and homeland security	1,385	2.0	1,334	2.2	1,274	2.2	1,296	2.3	1,208	2.3
Housing and economic development*	1,048	1.5	1,021	1.7	1,035	1.8	988	1.7	999	1.9
Labor and workforce development*	277	0.4	269	0.4	330	0.6	350	0.6	455	0.9
Medicaid	16,825	24.9	15,087	25.2	14,035	24.4	12,286	21.7	11,708	22.0
Pension	1,103	1.6	902	1.5	865	1.5	878	1.5	801	1.5
Direct local aid	5,599	8.3	5,469	9.1	5,353	9.3	5,179	9.1	4,991	9.4
Capital outlay:										
Local aid	1	—	—	—	—	—	—	—	—	—
Capital acquisition and construction	1,162	1.7	1,205	2	999	1.7	854	1.5	847	1.6
Debt service:										
Principal/commercial paper repayment	4,487	6.6	1,781	3.0	1,546	2.7	1,525	2.7	1,297	2.4
Interest	1,248	1.8	1,187	2.0	1,223	2.1	1,229	2.2	1,207	2.3
Principal on current refunding	250	0.4	203	0.3	159	0.3	230	0.4	—	—
Other financing uses:										
Payments to refunding bond escrow agent	2,613	3.9	615	1	562	1.0	2,046	3.6	388	0.7
Transfers	7,094	10.5	6,676	11.1	6,907	12.0	6,972	12.3	7,189	13.5
Total expenditures and other financing uses	<u>\$ 67,781</u>	<u>100.0</u>	<u>\$ 59,973</u>	<u>100.0</u>	<u>\$ 57,461</u>	<u>100.0</u>	<u>\$ 56,739</u>	<u>100.0</u>	<u>\$ 53,319</u>	<u>100.0</u>
Change in Governmental Fund Balance	<u>\$ (32)</u>		<u>\$ 686</u>		<u>\$ (251)</u>		<u>\$ (1,448)</u>		<u>\$ 1,051</u>	

* NOTE: Reflects departmental and functional reorganizations as of the year implemented. Prior years not restated.

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2011	% Total	2010	% Total	2009	% Total	2008	% Total	2007	% Total
\$ 58	0.1	\$ 59	0.1	\$ 60	0.1	\$ 58	0.1	\$ 59	0.1
771	1.4	769	1.5	797	1.5	796	1.6	799	1.6
4	—	4	—	3	—	3	—	3	—
5	—	5	—	8	—	9	—	5	—
45	0.1	52	0.1	51	0.1	51	0.1	52	0.1
5,084	9.6	4,862	9.4	5,097	9.8	5,089	10	4,712	9.6
18	—	18	—	19	—	19	—	18	—
34	0.1	52	0.1	53	0.1	45	0.1	62	0.1
2	—	2	—	2	—	2	—	2	—
104	0.2	102	0.2	112	0.2	111	0.2	102	0.2
3	—	1	—	1	—	1	—	2	—
514	1.0	394	0.8	296	0.6	295	0.6	272	0.6
2	—	2	—	3	—	2	—	2	—
25	—	28	0.1	37	0.1	36	0.1	10	—
—	—	—	—	—	—	—	—	—	—
14	—	13	—	14	—	14	—	14	—
1,852	3.3	1,686	3.3	1,709	3.4	1,528	3.1	1,849	3.9
368	0.7	403	0.8	352	0.7	312	0.6	318	0.6
—	—	—	—	—	—	—	—	402	0.8
—	—	—	—	—	—	560	1.1	518	1.1
6,791	12.8	6,655	12.9	6,684	12.9	6,423	12.6	5,907	12.1
—	—	474	0.9	389	0.8	347	0.7	350	0.7
2,086	3.9	1,209	2.3	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
3,232	6.1	2,968	5.8	2,920	5.6	2,205	4.3	2,048	4.2
—	—	—	—	—	—	—	—	—	—
791	1.5	973	1.9	657	1.3	765	1.5	1,411	2.9
—	—	—	—	—	—	131	0.3	126	0.3
1,146	2.2	1,282	2.5	1,416	2.7	1,407	2.8	1,238	2.5
1,082	2.0	1,060	2.1	793	1.5	710	1.4	512	1
478	0.9	447	0.9	398	0.8	308	0.6	81	0.2
12,124	22.8	10,678	20.8	10,843	20.9	9,770	19.2	9,044	18.5
744	1.4	587	1.1	647	1.2	368	0.7	373	0.8
4,846	9.1	5,030	9.8	5,208	10.1	5,108	10.1	5,072	10.4
—	—	1	—	3	—	10	—	9	—
885	1.7	1,300	2.5	2,514	4.9	1,698	3.3	1,724	3.5
1,071	2.0	1,300	2.5	1,296	2.5	1,336	2.6	1,417	2.9
1,149	2.2	1,107	2.2	1,114	2.2	1,150	2.3	1,121	2.3
—	—	—	—	—	—	—	—	—	—
945	1.8	537	1.0	410	0.8	—	—	1,520	3.1
6,947	13.1	7,395	14.4	7,887	15.2	10,141	20	7,781	15.9
<u>\$ 53,217</u>	<u>100.0</u>	<u>\$ 51,455</u>	<u>100.0</u>	<u>\$ 51,789</u>	<u>100.0</u>	<u>\$ 50,810</u>	<u>100.0</u>	<u>\$ 48,935</u>	<u>100.0</u>
<u>\$ 681</u>		<u>\$ (476)</u>		<u>\$ (2,001)</u>		<u>\$ (674)</u>		<u>\$ 467</u>	

Personal Income by Industry
Last Ten Calendar Years

(Amounts in millions)

	2015	2014	2013	2012	2011
Total personal income.....	\$ 415,636	\$ 396,206	\$ 381,271	\$ 363,944	\$ 352,243
Unearned income.....	97,728	94,494	91,615	87,333	83,338
Farm earnings.....	195	178	151	150	136
Nonfarm earnings.....	317,713	301,534	289,505	276,461	268,769
Private earnings.....	272,533	262,843	252,939	243,502	236,763
Agricultural services, forestry, fishing.....	406	354	373	426	409
Mining.....	276	270	201	113	124
Construction.....	17,197	15,481	14,759	13,426	12,526
Manufacturing.....	26,497	25,921	25,341	26,375	25,387
Durable goods.....	18,193	18,224	17,977	19,223	18,319
Nondurable goods.....	8,304	7,697	7,364	7,152	7,069
Transportation and utilities.....	7,600	7,295	7,083	6,742	6,604
Wholesale trade.....	13,938	13,546	13,483	12,979	13,082
Retail trade.....	14,716	14,137	13,565	13,333	12,891
Services.....	191,903	185,839	178,134	170,109	165,740
Government.....	39,921	38,691	36,567	32,959	32,006
Federal, civilian.....	5,202	5,007	4,792	5,442	5,426
Military.....	860	874	943	1,221	1,245
State and local.....	33,859	32,810	30,832	26,296	25,335
Personal income tax revenue (fiscal year, statutory basis)...	\$ 13,202	\$ 13,202	\$ 12,831	\$ 11,911	\$ 11,576
Total personal income.....	\$ 415,636	\$ 396,206	\$ 381,271	\$ 363,944	\$ 352,243
Average Effective Rate.....	3.2%	3.3%	3.4%	3.3%	3.3%
Highest Earned Income Tax Rate.....	5.15%	5.2%	5.25%	5.25%	5.3%

Sources: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System and the Massachusetts Department of Revenue. Average effective rate is individual income tax revenue divided by personal income.

Note: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System adjusted its methodology in 2008. Prior years restated.

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2010	2009	2008	2007	2006
\$ 336,400	\$ 324,680	\$ 335,722	\$ 322,543	\$ 304,855
81,190	78,336	80,365	71,529	65,384
186	137	180	135	131
255,024	246,208	255,176	250,878	239,340
223,784	215,396	225,122	222,302	211,900
383	376	383	405	396
97	101	181	301	363
11,687	11,717	13,671	14,900	15,193
25,108	23,290	25,449	25,865	24,698
18,053	16,466	18,170	18,464	17,639
7,055	6,824	7,280	7,401	7,059
6,208	6,029	6,235	5,891	5,706
12,501	12,458	13,412	13,025	12,538
12,599	12,255	12,545	12,960	12,952
155,202	149,171	153,246	148,954	140,056
31,240	30,812	30,054	28,577	27,439
5,431	5,314	5,157	5,045	4,873
1,260	1,220	1,092	1,025	1,005
24,550	24,278	23,806	22,507	21,561
\$ 10,110	\$ 10,584	\$ 12,484	\$ 11,400	\$ 10,483
\$ 336,400	\$ 324,680	\$ 335,722	\$ 322,543	\$ 304,855
3.0%	3.3%	3.7%	3.5%	3.4%
5.3%	5.3%	5.3%	5.3%	5.3%

Commonwealth of Massachusetts
Personal Income Tax Filers and Liability by Income Level
Calendar (Tax) Years 2014 and 2005

(Amounts, except income level are in thousands)

Calendar Year 2014 (or Fiscal Year 2015)

Income Level	Number of Filers	Percentage of Total	Personal Income Tax Liability	Percentage of Total
\$100,001 and higher	731,529	19.8%	\$ 9,651,807	72.7%
\$75,001 - \$100,000	298,138	8.1%	1,106,079	8.3%
\$50,001 - \$75,000	473,901	12.8%	1,197,000	9.0%
\$25,001 - \$50,000	784,592	21.2%	1,026,041	7.7%
\$10,001 - \$25,000	671,264	18.2%	273,099	2.1%
\$10,000 and lower	735,804	19.9%	32,317	0.2%
Total	<u>3,695,228</u>	<u>100.0%</u>	<u>\$ 13,286,343</u>	<u>100.0%</u>

Calendar Year 2005 (or Fiscal Year 2006)

Income Level	Number of Filers	Percentage of Total	Personal Income Tax Liability	Percentage of Total
\$100,001 and higher	480,143	14.3%	\$ 5,993,245	62.6%
\$75,001 - \$100,000	275,267	8.2%	1,033,820	10.8%
\$50,001 - \$75,000	450,284	13.4%	1,147,719	12.0%
\$25,001 - \$50,000	790,179	23.5%	1,073,105	11.2%
\$10,001 - \$25,000	668,956	19.9%	295,904	3.1%
\$10,000 and lower	696,550	20.7%	28,408	0.3%
Total	<u>3,361,379</u>	<u>100.0%</u>	<u>\$ 9,572,201</u>	<u>100.0%</u>

Source: Massachusetts Department of Revenue - 2014 is the most recent tax year for which complete data is available.

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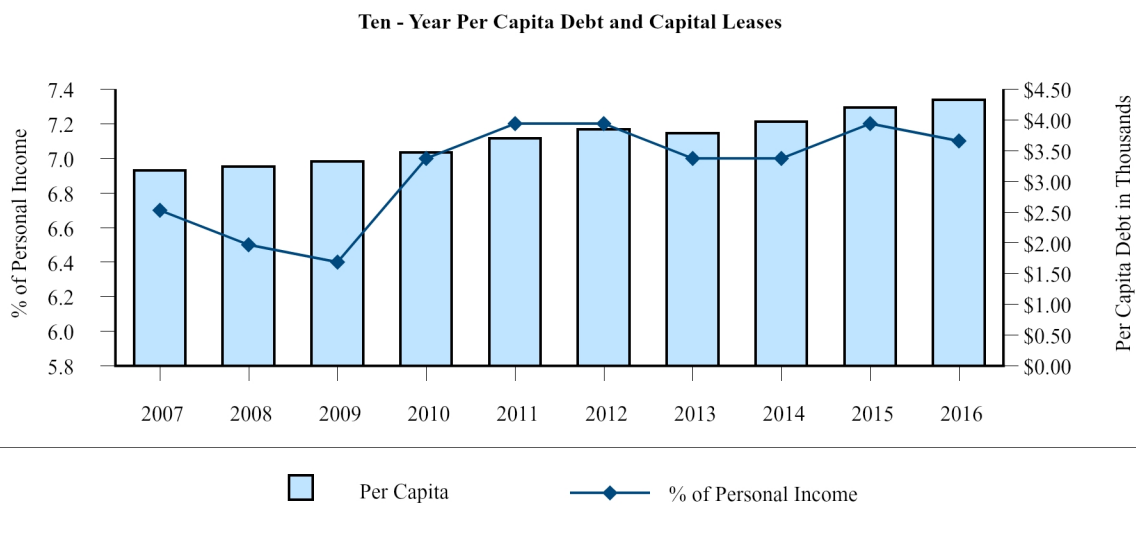
Ten -Year Schedule of Per Capita General Long-Term Bonded Debt and Capital Leases

(Amounts in thousands, except for percentages)

Fiscal Year Ended June 30	Governmental Activities		Business-Type Activities		Total Primary Government	Prior Year Personal Income	Massachusetts Resident Population (4)	Debt as a Percentage of Personal Income	Amount of Debt Per Capita
	Bonded Debt (1)	Capital Leases (2)	Bonded Debt (3)	Capital Leases					
2016	\$ 25,079,591	\$ 41,302	\$ 4,438,282	\$ 9,887	\$ 29,569,062	\$ 415,636,000	6,794	7.1%	\$ 4.35
2015	23,826,301	42,928	4,553,105	9,895	28,432,229	396,206,000	6,755	7.2%	4.22
2014	22,419,852	55,878	4,243,731	14,529	26,733,990	381,271,000	6,709	7.0%	3.99
2013	21,513,039	50,831	3,736,432	19,299	25,319,601	363,943,750	6,658	7.0%	3.81
2012	21,907,683	60,457	3,370,389	23,327	25,361,856	352,242,750	6,612	7.2%	3.87
2011	20,875,055	60,975	3,277,413	31,105	24,244,548	336,399,750	6,565	7.2%	3.72
2010	19,726,507	76,608	2,731,124	40,924	22,575,163	324,680,250	6,518	7.0%	3.49
2009	19,264,569	109,765	2,103,675	58,885	21,536,894	335,721,500	6,469	6.4%	3.35
2008	18,734,440	83,741	2,026,551	67,631	20,912,363	322,542,500	6,432	6.5%	3.26
2007	18,736,961	81,351	1,624,617	83,443	20,526,372	304,855,000	6,410	6.7%	3.20

- (1) Excludes Massachusetts School Building Authority debt. Amounts of bonded debt for governmental activities are the amount of debt for statutory debt calculation purposes. For fiscal 2007 through 2012, debt outstanding was defined in state finance law as net proceeds of debt issued. State finance law was amended, effective January 1, 2013, to change the statutory definition of outstanding debt from net proceeds to principal. Therefore, fiscal years prior to 2013 are calculated using net proceeds; fiscal 2013 and thereafter are calculated using principal.
- (2) Governmental capital leases exclude the lease between the Commonwealth and the Route 3 North Transportation Improvement Association, a discretely presented component unit.
- (3) Business-type activities bond debt includes notes payable of the Institutions of Higher Education.
- (4) Population estimates have been restated to most current United States Census Bureau Data. Population data is reported as of July 1 of the previous year. *Source: - [HTTP://www.fedstats.gov](http://www.fedstats.gov) (US Census Bureau.)*

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Ten Year Schedule of Outstanding Direct Debt and Statutory Debt Limit

(Amounts in thousands)

	2016 (3)	2015 (3)	2014 (3)	2013 (3)	2012
Outstanding principal as of June 30 (1).....	\$ 25,079,591	\$ 23,826,301	\$ 22,419,852	\$ 21,513,039	\$ 21,433,553
Plus/(less) amounts excluded:					
Net amortized (discount)/premium and issuance costs	—	—	—	—	474,130
Total net proceeds/principal	25,079,591	23,826,301	22,419,852	21,513,039	21,907,683
Less net proceeds/principal of direct debt excluded from statutory debt limit:					
Central artery project bonds	(1,150,296)	(1,197,127)	(1,241,263)	(1,303,013)	(1,342,841)
Accelerated bridge program	(2,192,930)	(2,195,004)	(1,756,395)	(1,088,605)	(1,095,385)
County debt assumed.....	—	—	—	—	(75)
(Premium)/discount	—	—	—	—	(474,130)
Grant anticipation notes (2).....	—	—	(178,390)	(349,100)	(510,385)
School Modernization and Reconstruction Trust Bonds...	(652,197)	(689,446)	(723,917)	(764,337)	(795,009)
Convention center bonds	(597,630)	(618,705)	(638,700)	(638,700)	(638,700)
MBTA forward funding bonds.....	(207)	(207)	(207)	(207)	(207)
Special obligation gas bonds	(170,735)	(210,635)	(249,705)	(296,395)	(337,545)
Outstanding direct debt, net proceeds/principal	20,315,596	18,915,177	17,631,275	17,072,682	16,713,406
Statutory debt limit*	20,748,692	19,760,659	18,819,675	17,923,500	17,070,000
Debt margin (debt limit less direct debt).....	\$ 433,096	\$ 845,482	\$ 1,188,400	\$ 850,818	\$ 356,594
Debt margin as a percentage of direct debt limit.....	2.1%	4.3%	6.3%	4.7%	2.1%

(1) Exclusive of the Massachusetts School Building Authority debt.

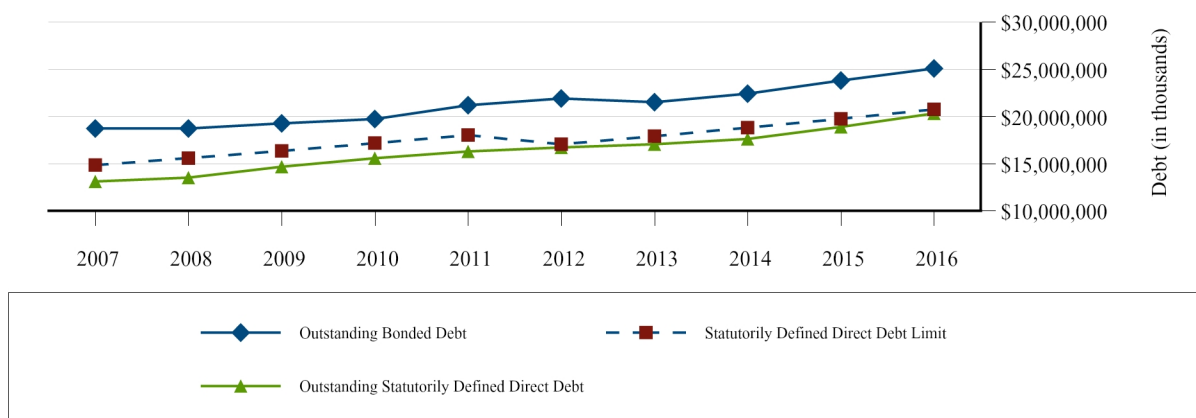
(2) Inclusive of crossover refunding amounts.

(3) For fiscal 2007 through 2012, debt outstanding was defined in state finance law as net proceeds of debt issued. State finance law was amended, effective January 1, 2013, to change the statutory definition of outstanding debt from net proceeds to principal. Therefore, fiscal years prior to 2013 are calculated using net proceeds; fiscal 2013 and thereafter are calculated using principal.

* Section 60A of Chapter 165 of the Acts of 2012, as amended, reset the statutory defined debt limit, effective July 1, 2012, to \$17.070 billion

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**Outstanding Bonded Debt, Statutory Direct Debt and Statutory Debt Limit
2007 - 2016**



2011	2010	2009	2008	2007
\$ 20,875,056	\$ 19,509,819	\$ 19,047,679	\$ 18,611,105	\$ 18,634,913
335,078	216,688	216,890	123,335	102,048
21,210,134	19,726,507	19,264,569	18,734,440	18,736,961
(1,356,606)	(1,243,250)	(1,401,581)	(1,434,654)	(1,462,870)
(676,125)	—	—	—	—
(150)	(225)	(300)	(375)	(450)
(335,078)	216,688	216,890	123,335	102,048
(666,790)	(997,467)	(1,134,797)	(1,536,206)	(1,666,690)
(824,279)	(894,502)	(921,751)	(946,285)	(946,285)
(643,715)	(643,715)	(643,715)	(643,715)	(643,715)
(44,472)	(165,559)	(231,000)	(309,203)	(368,873)
(371,665)	(419,785)	(456,984)	(482,953)	(617,226)
16,291,254	15,578,692	14,691,331	13,504,384	13,132,900
18,042,424	17,183,261	16,365,011	15,585,725	14,843,547
\$ 1,751,170	1,604,569	\$ 1,673,680	\$ 2,081,341	\$ 1,710,647
9.7%	9.3%	10.2%	13.4%	11.5%

Ten Year Schedule of Pledged Revenue Coverage

Special Obligation Highway Bonds (Motor Fuels Taxation and Motor Vehicle Fees), Convention Center Bonds (Tax Incremental Financing) and Grant Anticipation Notes (Federal Highway Grants)

(Statutory Basis, Amounts in Thousands, Except for Federal Highway Appropriations which are in Billions and on a Federal Fiscal Year, and Except for Ratios)

	2016	2015	2014	2013	2012
Highway Bonds					
For issues prior to December 2010, the bonds are secured by a pledge of 6.86¢ of the 21¢ per gallon state gasoline excise tax for FY2008 and before. For FY2009 and beyond, the pledge is up to 10¢ of the tax. Bonds issued in December 2010, May 2012 and November 2013 (Commonwealth Transportation Fund, or "CTF bonds") are secured by a senior lien on 17.085 cents of the total 24 cent per gallon gasoline tax, the full 21 cents per gallon of special fuels taxes (comprised primarily of taxes on diesel fuel), the full 19.1% of the average price per gallon tax on liquefied natural gas and all Registry of Motor Vehicle fees deposited in the Commonwealth Transportation Fund. Federal Build America Bonds subsidies are also pledged to all CTF bonds. The bonds also have a subordinate lien on 6.86¢ of the 24¢ per gallon gasoline tax not included in the senior lien. Revenues pledged to the bonds are available prior to use for any other purposes. Thus, operating expenses paid from these revenue sources are not applicable for the purpose of calculating debt service coverage ratios and are not shown in this table. The 2010 bonds were issued as federally taxable Build America Bonds/Recovery Zone Economic Development Bonds; the programs provide an interest subsidy of 35-45% directly to the Commonwealth. The interest subsidy is shown as pledged funds and debt service is gross of the subsidy.					
Pre-2010 Bond Issues					
Tax Receipts.....	238,303	\$ 187,913	\$ 187,467	\$ 186,638	\$ 190,129
Operating Expenses	N/A	N/A	N/A	N/A	N/A
Net Available Revenues.....	\$ 238,303	\$ 187,913	\$ 187,467	\$ 186,638	\$ 190,129
Annual Debt Service.....	\$ 50,906	\$ 52,225	\$ 52,228	\$ 58,922	\$ 58,939
Debt Service Coverage Ratio.....	4.68	3.60	3.59	3.17	3.23
Ratings History of Bonds (Fitch, Moody's and S&P)*.....	AA+, Aa1, AAA	AA+, Aa1, AAA	AA+, Aa1, AAA	AA+, Aa1, AAA	AA+, Aa1, AAA
Post-2010 Bond Issues (Includes Revenues in Excess of Those Needed to Pay Debt Service on Pre-2010 Highway Bonds)					
Receipts.....	\$ 1,272,022	\$ 1,201,056	\$ 1,149,580	\$ 1,170,297	\$ 1,121,709
Operating Expenses	N/A	N/A	N/A	N/A	N/A
Net Available Revenues.....	\$ 1,272,022	\$ 1,201,056	\$ 1,149,580	\$ 1,170,297	\$ 1,121,709
Annual Debt Service.....	\$ 94,859	\$ 81,054	\$ 69,921	\$ 58,108	\$ 32,623
Debt Service Coverage Ratio.....	13.41	14.82	16.44	20.14	34.38
Ratings History of Bonds (Fitch, Moody's and S&P)*.....	NA, Aaa, AAA	NA, Aaa, AAA	NA, Aaa, AAA	NA, Aaa, AAA	NA, Aaa, AAA
Convention Center Bonds					
These bonds are secured by amounts payable to the Convention Center Fund, which include certain hotel tax receipts in Boston, Cambridge, Springfield, surcharges on car rentals, parking, sightseeing tours and cruises and sales tax receipts in those cities. Revenues pledged to the bonds are available prior to use for any other purposes. Thus, operating expenses paid from these revenue sources are not applicable for the purpose of calculating debt service coverage ratios and are not shown in this table.					
Receipts.....	\$ 134,806	\$ 124,937	\$ 109,879	\$ 100,631	\$ 94,234
Operating Expenses	N/A	N/A	N/A	N/A	N/A
Net Available Revenues.....	\$ 134,806	\$ 124,937	\$ 109,879	\$ 100,631	\$ 94,234
Annual Debt Service.....	\$ 54,511	\$ 52,852	\$ 34,486	\$ 34,486	\$ 34,486
Debt Service Coverage Ratio.....	2.47	2.36	2.99	2.76	2.59
Ratings History of Bonds (Fitch, Moody's and S&P)*.....	NA, A1, A	NA, A1, A	NA, A1, A	NA, A1, A	NA, A1, A
Grant Anticipation Notes (GANS)					
Notes issued prior to December 2010 ("Senior Federal Highway Notes") were secured by all federal highway reimbursements, which are deposited in the Grant Anticipation Note Trust fund. The outstanding pre-December 2010 notes were retired in June 2015 and Notes issued in December 2010 ("Federal Highway Grant Anticipation Notes") and after are secured by all federal highway reimbursements. Revenues pledged to the notes are available prior to use for any other purposes. Thus, operating expenses paid from these revenue sources are not applicable for the purpose of calculating debt service coverage ratios and are not shown in this table. The 2010 bonds were issued as federally taxable Build America Bonds; the program provides an interest subsidy of 35% directly to the Commonwealth. The interest subsidy is shown as pledged funds and debt service is gross of the subsidy.					
Post 2010 GANS (Includes Revenues in Excess of those Needed to Pay Debt Service on Pre-2010 Highway Bonds)					
Receipts.....	\$ 1,729,337	\$ 1,474,051	\$ 1,503,272	\$ 1,575,266	\$ 1,674,485
Operating Expenses	N/A	N/A	N/A	N/A	N/A
Net Available Revenues.....	\$ 1,729,337	\$ 1,474,051	\$ 1,503,272	\$ 1,575,266	\$ 1,674,485
Annual Debt Service.....	\$ 76,049	\$ 33,472	\$ 4,268	\$ 4,973	\$ 4,271
Debt Service Coverage Ratio.....	22.74	44.04	352.22	316.76	392.06
Ratings History of Bonds (Fitch, Moody's and S&P)*.....	AA+, Aa1, AAA	AA+, Aa1, AAA	AA+, Aa1, AAA	AA+, Aa2, AAA	AA+, Aa2, AAA

*Uninsured rating, if available.

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2011	2010	2009	2008	2007
------	------	------	------	------

\$ 189,763	\$ 188,666	\$ 189,246	\$ 194,785	\$ 148,047
N/A	N/A	N/A	N/A	N/A
\$ 189,763	\$ 188,666	\$ 189,246	\$ 194,785	\$ 148,047
\$ 59,453	\$ 58,931	\$ 58,924	\$ 56,535	\$ 58,867
3.19	3.2	3.21	3.45	2.51
AA, Aa1, AAA	AA, Aa2, AA+	AA+, Aa3, AA+	AA-, Aa3, AA	AA-, Aa3, AA

\$ 626,619
N/A
\$ 626,619
\$ 14,318
43.76
NA, Aaa, AAA

\$ 84,905	\$ 75,432	\$ 73,918	\$ 78,984	\$ 66,347
N/A	N/A	N/A	N/A	N/A
\$ 84,905	\$ 75,432	\$ 73,918	\$ 78,984	\$ 66,347
\$ 34,486	\$ 34,486	\$ 34,486	\$ 34,486	\$ 34,486
2.40	2.08	2.04	2.22	1.92
NA, A1, A	NA, A1, A	NA, A1, A	NA, A2, A	A2, A

\$ 909,546
N/A
\$ 909,546
\$ 2,039
446.01
AA+, Aa2, AAA

**Ten-Year Schedule of Percentage of Annual Debt Service Expenditures
For General Bonded Debt to Total Non-Capital Expenditures - Fund Perspective
All Governmental Fund Types**

(Amounts in thousands)

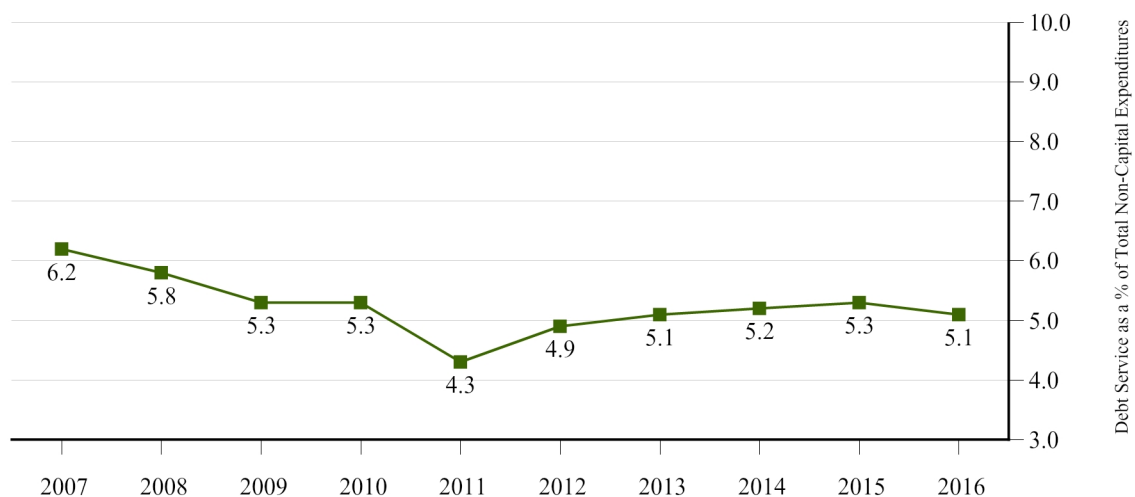
Fiscal year ended June 30	Debt service (1)	Total non-capital expenditures (2)	Ratio (%)
2016	\$ 2,720,117	\$ 53,748,227	5.1
2015*	2,703,200	51,171,135	5.3
2014*	2,534,285	48,312,870	5.2
2013*	2,351,074	45,733,298	5.1
2012*	2,160,589	44,070,405	4.9
2011*	1,904,881	43,881,014	4.3
2010*	2,116,507	40,152,632	5.3
2009*	2,144,733	40,605,292	5.3
2008*	2,238,939	38,709,686	5.8
2007*	2,351,818	37,643,182	6.2

- (1) Business type activities debts are secured solely by leases between the Institutions of Higher Education and two blended building authorities. Excludes Massachusetts School Building Authority debt service paid by the Authority.
- (2) Expenditures are shown net of Massachusetts School Building Authority expenditures as they are school building assistance capital grants to local cities and towns.

* - Amounts have been restated to conform to current year presentation.

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Debt Service to Non-Capital Expenditures Ratio 2007 - 2016



**Component Units Revenue Bond Coverage
For the Last Ten Fiscal Years**

(Amounts in thousands)

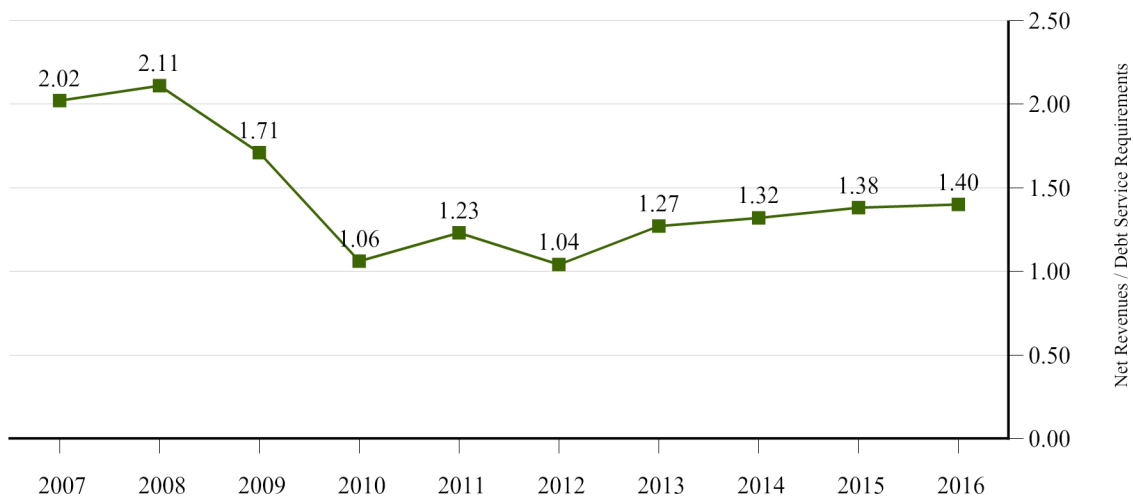
Fiscal year ended June 30	Net Revenues ⁽¹⁾	Debt service requirements ⁽²⁾	Coverage Ratio (%)
2016	\$ 1,817,135	\$ 1,298,267	1.40
2015	1,950,292	1,417,420	1.38
2014	1,481,374	1,126,392	1.32
2013	1,585,500	1,244,358	1.27
2012	1,584,013	1,517,899	1.04
2011	1,444,813	1,170,149	1.23
2010	1,460,045	1,383,231	1.06
2009	1,825,018	1,066,175	1.71
2008	1,753,149	831,978	2.11
2007	1,725,941	853,752	2.02

- (1) Net revenues represent revenue pledged and available for the repayment of revenue bonds. In most cases, revenue pledged for the bonds is available prior to use for any other purposes. Thus operating expenses paid from these revenue sources are not applicable when calculating debt service coverage and are not subtracted from pledged revenues.
- (2) Debt service requirements represent total debt service payments made less debt service paid on short-term borrowings of only those Authorities with revenue bonds outstanding.

Source: Office of the Comptroller

See Independent Auditor's Report

Component Units Revenue Bond Coverage 2007 - 2016



Ten-Year Schedule of Massachusetts and United States Resident Population

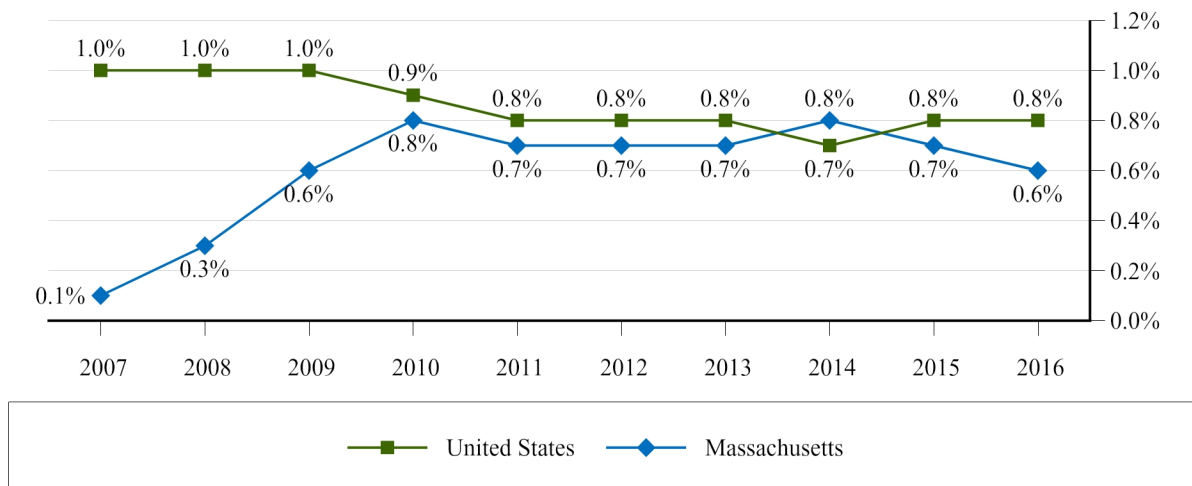
(Amounts in thousands)

Beginning of Fiscal Year	United States	% Change	Massachusetts Resident Population ⁽¹⁾	% Change	Massachusetts as % of U.S.
2016	321,419	0.8%	6,794	0.6%	2.1%
2015	318,907	0.8%	6,755	0.7%	2.1%
2014	316,427	0.7%	6,709	0.8%	2.1%
2013	314,103	0.8%	6,658	0.7%	2.1%
2012	311,719	0.8%	6,612	0.7%	2.1%
2011	309,347	0.8%	6,565	0.7%	2.1%
2010	306,772	0.9%	6,518	0.8%	2.1%
2009	304,094	1.0%	6,469	0.6%	2.1%
2008	301,231	1.0%	6,432	0.3%	2.1%
2007	298,380	1.0%	6,410	0.1%	2.1%

(1) Population estimates have been restated using most current United States Census Bureau Data. Population data is reported as of July 1 of the previous year and has been restated to most recent United States Census Bureau Data.

See Independent Auditor's Report

**Massachusetts and United States Estimated Year-to-Year Population Change
2007 - 2016**



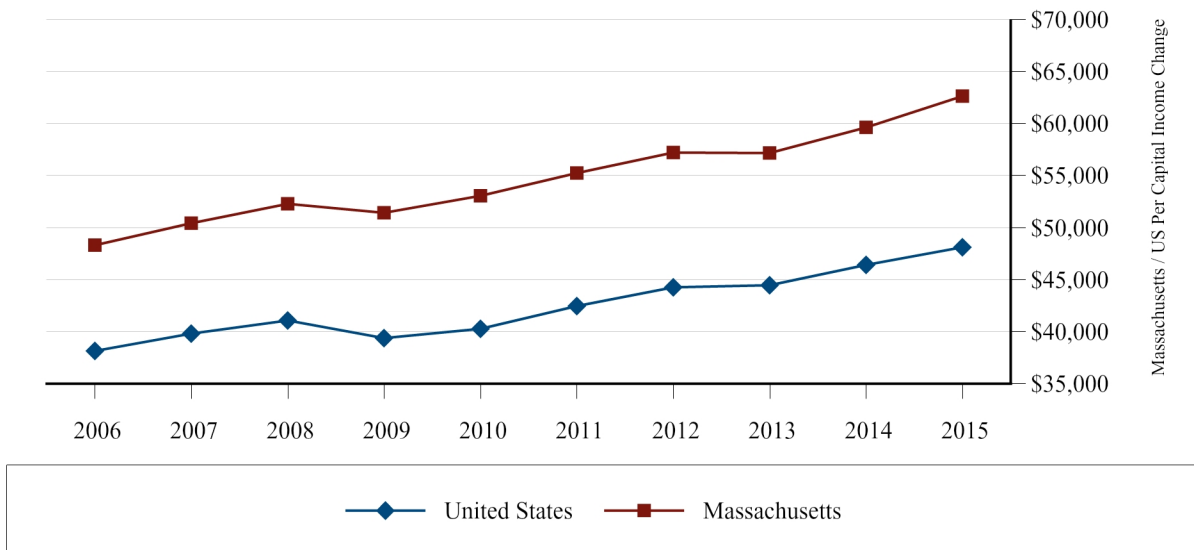
Ten-Year Schedule of Massachusetts and United States Resident Per Capita Net Income

Calendar year	United States	% Change	Massachusetts	% Change	Massachusetts as % of U.S.
2015	\$ 48,112	3.7 %	\$ 62,603	5.0 %	130.1%
2014	46,414	4.4 %	59,603	4.3 %	128.4%
2013	44,462	0.4 %	57,165	(0.1)%	128.6%
2012	44,267	4.3 %	57,194	3.6 %	129.2%
2011	42,453	5.4 %	55,233	4.1 %	130.1%
2010	40,277	2.3 %	53,058	3.2 %	131.7%
2009	39,376	(4.2)%	51,412	(1.7)%	130.6%
2008	41,082	3.2 %	52,283	3.7 %	127.3%
2007	39,821	4.4 %	50,417	4.4 %	126.6%
2006	38,144	6.2 %	48,307	8.3 %	126.6%

Source: Bureau of Economic Analysis, US Department of Commerce. Prior years restated due to revised estimates released on September 28, 2016.

See Independent Auditor's Report

**Massachusetts and United States Estimated Per Capita Net Income
2006 - 2015**

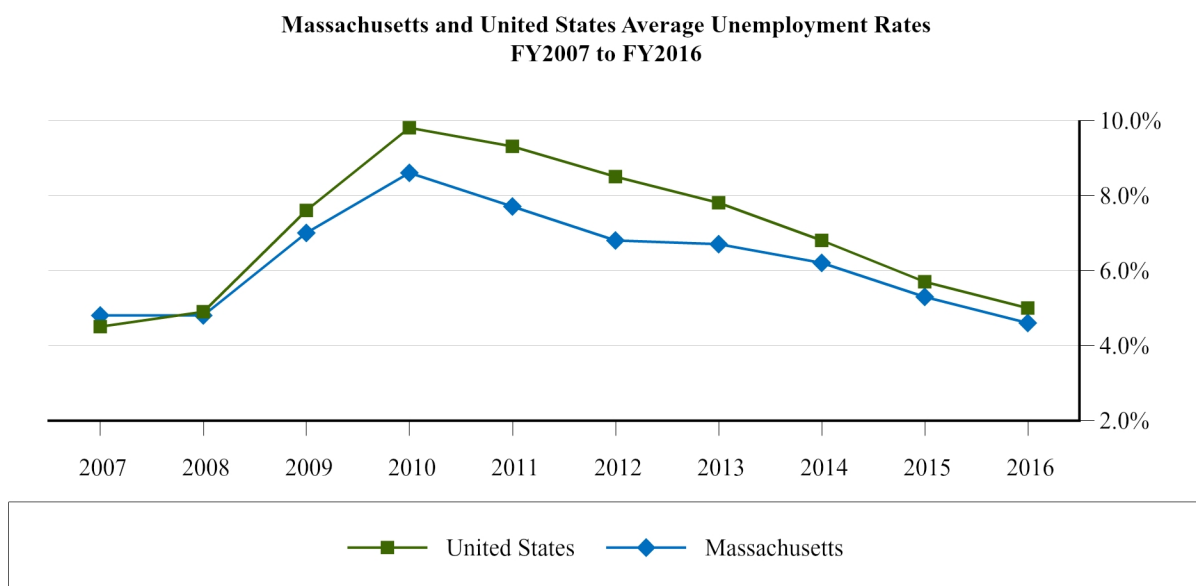


**Ten-Year Schedule of Fiscal Year Annual Average Civilian Labor Force,
Unemployment and Unemployment Rates
For Massachusetts and the United States**
(Amounts in thousands)

Fiscal Year	Massachusetts			United States			Massachusetts Rate as % of U.S. Rate
	Labor Force	Unemployment	Unemployment Rate %	Labor Force	Unemployment	Unemployment Rate %	
2016	3,575	164	4.6%	158,010	7,886	5.0%	91.9%
2015	3,580	188	5.3%	156,619	8,903	5.7%	92.4%
2014	3,523	217	6.2%	155,476	10,514	6.8%	91.1%
2013	3,493	234	6.7%	155,331	12,076	7.8%	86.2%
2012	3,472	236	6.8%	154,298	13,150	8.5%	79.8%
2011	3,464	268	7.7%	153,615	14,252	9.3%	83.4%
2010	3,470	300	8.6%	153,906	15,009	9.8%	88.7%
2009	3,470	244	7.0%	154,559	11,767	7.6%	92.4%
2008	3,434	165	4.8%	153,680	7,593	4.9%	97.2%
2007	3,424	164	4.8%	152,438	6,904	4.5%	105.8%

Source: Federal Bureau of Labor Statistics, September, 2016. Seasonally adjusted. Previous data has been updated by the Federal Bureau of Labor Statistics

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Largest Private Sector Massachusetts Employers 2016 and 2007

(Alphabetical Order)

2016			2007		
Employer	Headquarters	Product or Service	Employer	Headquarters	Product or Service
Bay State Medical Center, Inc.	Springfield	Hospital	Bay State Medical Center, Inc.	Springfield	Insurance
Beth Israel Deaconess Medical Center	Boston	Hospital	Beth Israel Deaconess Medical Center	Boston	Hospital
Boston Medical Center Corporation	Boston	Hospital	Boston Medical Center Corporation	Boston	Hospital
Boston University	Boston	University	Boston University	Boston	University
Brigham and Women's Hospital, Inc.	Boston	Hospital	Brigham and Women's Hospital, Inc.	Boston	Hospital
DeMoulas Supermarkets, Inc.	Tewksbury	Supermarket	DeMoulas Supermarkets, Inc.	Tewksbury	Supermarket
EMC Corporation	Hopkinton	Computer Storage & Peripherals	EMC Corporation	Hopkinton	Computer Storage & Peripherals
General Hospital Corporation	Boston	Hospital	Friendly Ice Cream Corporation	Wilbraham	Food Service
Massachusetts Institute of Technology	Cambridge	University	General Hospital Corporation	Boston	Hospital
Partners Healthcare Systems, Inc.	Boston	Hospital	Massachusetts Institute of Technology	Cambridge	University
President and Fellows of Harvard College	Cambridge	University	President and Fellows of Harvard College	Cambridge	University
Raytheon Company	Lexington	Electronics / Defense	Raytheon Company	Lexington	Electronics / Defense
The Stop & Shop Supermarkets , Co.	Quincy	Supermarket	Shaw's Supermarkets, Inc.	West Bridgewater	Supermarket
Shaw's Supermarkets, Inc.	West Bridgewater	Supermarket	Southcoast Hospitals Group	New Bedford	Hospital
Southcoast Hospitals Group	New Bedford	Hospital	State Street Bank Corp,	Boston	Banking
State Street Bank and Trust Company	Boston	Banking	The Children's Hospital Corporation	Boston	Hospital
The Children's Hospital Corporation	Boston	Hospital	UMASS Memorial Medical Center, Inc.	Worcester	Hospital
The TJX Companies, Inc.	Framingham	Retail	Verizon New England, Inc.	Boston	Telecommunications
UMASS Memorial Medical Center, Inc.	Worcester	Hospital			

Source: Massachusetts Executive Office of Labor and Workforce Development, Division of Unemployment Assistance - March 2016 survey. In addition, Bank of America NA, Home DepotUSA, Inc., Massachusetts CVS Pharmacy LLC, Target Corp, United Parcel Service, Inc. and Wal-Mart Associates, Inc. are all large Massachusetts employers, but are headquartered outside of Massachusetts. Verizon New England is a subsidiary of Verizon Communications, headquartered in New York. The information is based on employers registered for unemployment insurance. The list may not include those employers who do business in Massachusetts under multiple legal corporations and those who register each store, facility or franchisee as a separate employer.

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Full Time Equivalent Employees
By Function / Program
Last Ten Years

Functions/Programs	2016	2015 *	2014	2013	2012
General government.....	7,017	7,696	7,637	7,627	7,408
Judiciary.....	7,263	7,264	7,195	7,297	7,087
Energy and environmental affairs.....	2,539	2,689	2,629	2,684	2,685
Health and human services	21,557	22,060	21,496	21,996	21,042
Transportation and construction	4,004	4,357	4,301	4,243	4,230
Education	907	970	1,099	928	922
Public safety and homeland security	16,868	17,057	17,215	16,907	16,503
Housing and economic development.....	844	884	891	868	845
Higher Education:					
University of Massachusetts.....	15,130	14,670	14,066	14,688	14,159
State universities.....	5,050	5,036	4,969	4,856	4,747
Community colleges.....	5,032	5,077	4,990	5,111	4,834
Totals.....	86,211	87,760	86,488	87,205	84,462
Percentage change	(1.8)%	1.5%	(0.8)%	3.2%	(0.9)%

Source: Office of the State Comptroller

* Certain amounts were reclassified to conform to current year presentation.

"Education" includes the Department of Elementary & Secondary Education, Executive Office of Education, Board of Higher Education and in 2009 Early Education and Care. Transportation and construction includes MassDOT. FTE's are rounded. Prior years not restated for changes. Includes approximately 6,600 FTEs transferred to the Commonwealth's payroll in FY09 and FY10 in the categories of Higher Education, Transportation and construction and Public safety and homeland security (see pages 20-21 of Management's Discussion and Analysis for details).

See Independent Auditor's Report

2011	2010	2009	2008	2007	Change - 2016 from 2007
8,020	8,280	6,277	6,368	6,204	13.1 %
7,111	7,388	7,821	8,021	7,993	(9.1)%
2,737	2,783	2,955	2,928	2,847	(10.8)%
21,011	21,401	22,605	23,322	22,972	(6.2)%
4,209	4,127	3,043	2,892	1,903	110.4 %
1,037	1,575	844	615	617	47.0 %
15,785	15,857	13,951	14,242	14,550	15.9 %
831	846	2,314	2,302	2,339	(63.9)%
14,159	14,031	13,814	13,651	13,602	11.2 %
4,487	4,282	4,650	4,519	4,495	12.3 %
4,684	4,276	4,781	4,775	4,689	7.3 %
84,071	84,846	83,055	83,636	82,211	4.9 %
2.2%	2.2%	(0.7)%	1.7%	1.7%	

**Average Annual Medicaid Caseload and
Medicaid Expenditures - Fund Perspective
Last Ten Fiscal Years**

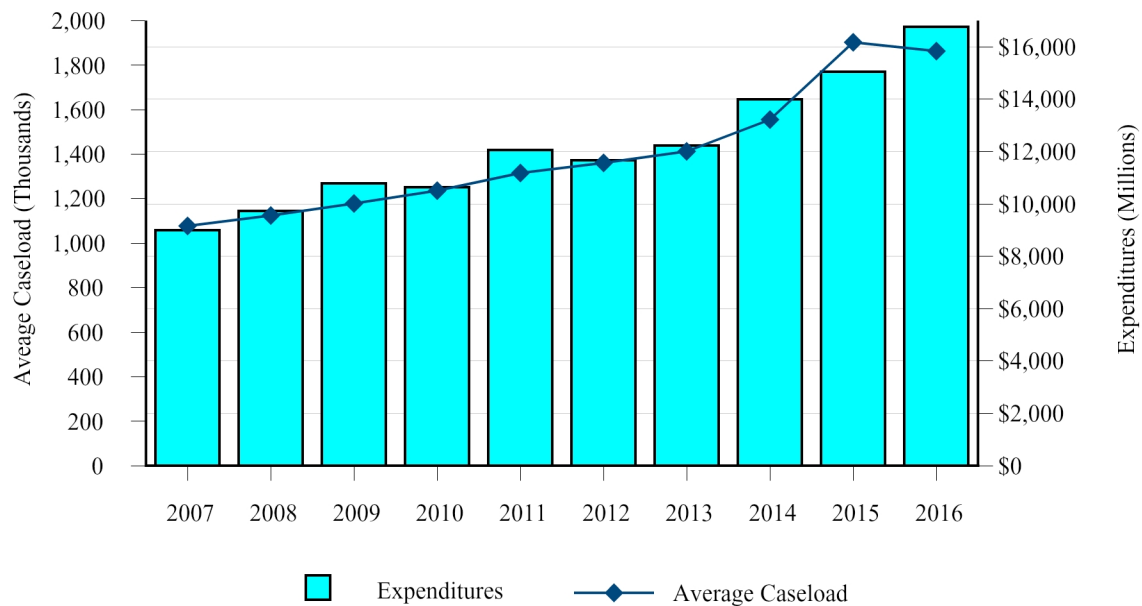
(Caseload amount in thousands, Expenditure amounts in Millions)

Fiscal year ended June 30	Average Annual Caseload	Medicaid expenditures	Average Expenditures per Case
2016*	1,863	\$16,825	\$9,031
2015*	1,903	15,087	7,928
2014*	1,556	14,035	9,020
2013	1,413	12,286	8,695
2012	1,361	11,708	8,602
2011	1,315	12,124	9,220
2010	1,263	10,678	8,454
2009	1,178	10,843	9,205
2008	1,124	9,770	8,690
2007	1,077	9,044	8,397

* Includes members in transitional coverage program starting January 1, 2014.

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Average Annual Caseload and Medicaid Expenditures 2007 - 2016



Massachusetts Road Inventory
Calendar Year End, Lane Miles by Type
Last Ten Calendar Years

Calendar Year	Interstate	Arterial	Collector	Local	Total	% Change	Total Urban	Total Rural
2015	3,204	15,641	9,048	44,654	72,547	0.24 %	85.8%	14.2%
2014	3,211	15,645	9,048	44,472	72,376	(0.01)%	85.7%	14.3%
2013	3,211	15,674	9,058	44,438	72,381	0.16 %	85.7%	14.3%
2012	3,212	15,639	9,038	44,379	72,268	0.13 %	85.8%	14.2%
2011	3,212	15,051	9,611	44,300	72,174	0.2 %	81.1%	18.9%
2010*	3,210	15,047	9,607	44,169	72,033	0.2 %	81.1%	18.9%
2009	3,212	14,974	9,589	44,112	71,887	0.3 %	81.1%	18.9%
2008	3,212	14,976	9,591	43,893	71,672	0.4 %	81.1%	18.9%
2007	3,213	14,993	9,566	43,612	71,383	0.17 %	80.9%	19.1%
2006	3,209	14,958	9,567	43,527	71,261	0.31 %	81%	19%

*2010 was restated to include both urban and rural roads.

Source: Massachusetts Highway Department, Bureau of Transportation Planning and Development Annual Road Inventory Reports, Lane Miles Table 8. Exclusive of shoulders

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Massachusetts Real Property Owned and Leased
Annual Inventory, Acreage, Improvements and Square Footage
Last Ten Years

Functions/Programs	Survey Year 2016	Survey Year 2015	Survey Year 2014	Survey Year 2013	Survey Year 2012
General Government:					
Total Acreage.....	2,488	2,574	3,114	3,101	3,039
Number of Improvements	118	173	513	333	279
Gross square footage	4,808,125	6,803,498	10,916,681	9,076,550	7,690,761
Judiciary:					
Total Acreage.....	153	153	149	148	148
Number of Improvements	75	75	74	73	73
Gross square footage	4,843,949	4,843,949	5,310,049	4,700,920	4,700,920
Energy and environmental affairs					
Total Acreage.....	680,310	674,046	668,631	652,400	642,799
Number of Improvements	2,186	2,186	1,806	2,192	2,191
Gross square footage	8,134,142	8,134,142	6,507,161	7,287,961	7,283,666
Housing and economic development:					
Total Acreage.....	2	2	—	2	2
Number of Improvements	6	6	4	5	5
Gross square footage	78,012	78,012	57,812	68,412	68,412
Health and human services:					
Total Acreage.....	5,568	5,623	5,834	5,829	6,407
Number of Improvements	627	627	907	792	855
Gross square footage	8,361,435	8,360,310	10,995,096	9,759,611	10,923,090
Transportation and public works:					
Total Acreage.....	6,968	6,966	7,014	6,965	6,972
Number of Improvements	930	929	675	921	919
Gross square footage	5,820,282	4,919,282	1,989,583	4,876,689	4,876,689
Education:					
Total Acreage.....	208	208	208	208	208
Number of Improvements	40	40	40	43	43
Gross square footage	207,633	207,633	205,503	272,352	272,352
Public safety and homeland security:					
Total Acreage.....	19,150	19,150	19,166	19,169	19,172
Number of Improvements	1,063	1,014	1,083	997	990
Gross square footage	13,845,503	13,376,555	14,402,161	12,213,112	12,191,229
Higher Education:					
Total Acreage.....	7,244	7,243	7,128	7,473	7,254
Number of Improvements	1,078	1,076	873	1,009	1,007
Gross square footage	38,443,057	38,411,260	29,666,140	32,594,800	32,523,400
Totals for Commonwealth (exclusive of Component Units):					
Total Acreage.....	722,091	715,965	711,244	695,295	686,001
Number of Improvements.....	6,123	6,126	5,975	6,365	6,362
Gross square footage.....	84,542,138	85,134,641	80,050,186	80,850,407	80,530,519
Percentage Change for Commonwealth:					
Acreage.....	0.9 %	0.7%	2.3 %	1.4%	2.3 %
Improvement.....	— %	2.5%	(6.1)%	—%	0.7 %
Gross square footage.....	(0.7)%	6.4%	(1)%	0.4%	1.1 %

Source: Executive Office of Administration and Finance, Division of Capital Asset Management. See <http://www.mass.gov/anf/property-mgmt-and-construction/sale-and-lease-of-state-assets/comprehensive-real-estate-serv/massets-reports.html>

See Independent Auditor's Report

Survey Year 2011	Survey Year 2010	Survey Year 2009	Survey Year 2008	Survey Year 2007
2,993	2,373	2,495	1,858	1,681
255	227	240	163	84
7,206,548	6,797,819	6,660,792	5,736,028	4,767,751
141	141	141	145	135
68	68	69	71	71
4,787,564	4,787,564	4,826,836	5,080,836	4,889,645
627,286	623,952	606,662	591,511	586,173
2,182	2,183	2,170	2,162	2,156
7,295,922	7,299,322	7,246,280	7,242,870	7,185,678
2	2	2	2	2
6	6	6	6	6
77,642	77,642	77,642	77,642	77,642
6,449	7,196	7,166	7,259	7,604
866	866	902	980	1,059
10,834,266	10,809,259	11,214,034	12,270,433	13,371,858
7,013	6,966	7,050	6,930	6,933
918	918	915	915	914
4,873,783	4,876,689	4,876,936	4,876,936	4,856,942
233	233	233	233	233
43	43	43	43	43
272,352	272,352	272,352	272,352	272,352
19,158	18,693	18,331	18,324	18,319
991	1,029	1,028	1,023	1,031
12,141,396	12,685,447	12,632,897	12,631,497	12,768,250
7,178	7,169	7,151	7,149	7,133
987	975	937	940	932
32,144,815	32,117,854	31,101,329	31,197,929	30,947,996
670,454	666,725	649,231	633,412	628,212
6,316	6,315	6,310	6,303	6,296
79,634,288	79,723,948	78,909,098	79,386,523	79,138,114
0.6 %	2.7%	2.5 %	0.8%	2.8 %
— %	0.1%	0.1 %	0.1%	(1.3)%
(0.1)%	1%	(0.6)%	0.3%	(0.4)%

Massachusetts Public Higher Education
Enrollment and Degrees Conferred
Last Ten Academic Years

Academic Year	Fall 2015	Fall 2014	Fall 2013	Fall 2012	Fall 2011
<u>ENROLLMENT</u>					
<u>University System</u>					
Undergraduate (FTE)	50,816	49,725	48,893	48,136	47,432
Graduate (FTE)	12,517	12,576	12,442	12,202	12,048
System Enrollment	63,333	62,301	61,335	60,338	59,480
<u>State University System</u>					
Undergraduate (FTE)	34,700	35,507	35,429	34,773	35,639
Graduate (FTE)	8,007	7,507	7,704	7,894	6,224
System Enrollment	42,707	43,014	43,133	42,667	41,863
<u>Community College System</u>					
Undergraduate (FTE)	59,827	58,764	64,584	62,445	64,586
<u>DEGREES CONFERRED</u>					
	2016	2015	2014	2013	2012
<u>University System</u>					
Certificates (MD's)	423	435	376	426	348
Associate's	85	103	96	121	97
Bachelors	12,125	11,841	11,544	10,910	10,399
Masters	3,669	3,787	3,559	3,442	3,360
Doctoral	575	504	501	486	450
Cert. of Adv. Grad. Study	86	81	77	62	89
Post-Bacc. Certificate	769	738	691	664	659
First Professional	53	64	79	103	43
Total Degrees	17,785	17,553	16,923	16,214	15,445
<u>State University System</u>					
Certificates	40	29	34	37	29
Bachelors	8,762	8,534	8,184	8,024	7,722
Masters	2,353	2,116	2,478	2,327	2,404
Cert. of Adv. Grad. Study	73	64	113	108	143
Post-Bacc. Certificate	283	304	327	371	362
Total Degrees	11,511	11,047	11,136	10,867	10,660
<u>Community College System</u>					
Certificates	3,131	3,288	3,365	2,929	2,888
Associates	11,318	11,517	11,341	10,772	10,404
Total Degrees	14,449	14,805	14,706	13,701	13,292
Total All Systems - Degrees	43,745	43,405	42,765	40,782	39,397

Source: Massachusetts Board of Higher Education. Enrollment information based at the start of the academic year.

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Fall 2010	Fall 2009	Fall 2008	Fall 2007	Fall 2006	Change - 2015 from 2006
48,018	44,543	42,768	40,806	47,432	5.8 %
11,734	10,177	9,460	9,328	12,048	6.7 %
59,752	54,720	52,228	50,134	59,480	6.0 %
36,721	34,129	33,040	32,106	35,639	(5.5)%
7,227	4,582	4,495	4,428	6,224	10.8 %
43,948	38,711	37,535	36,534	41,863	(2.8)%
64,971	60,602	54,228	51,257	64,586	(7.9)%
2011	2010	2009	2008	2007	% Change - 2016 from 2007
246	329	280	270	268	57.8 %
100	111	103	96	117	(27.4)%
9,958	9,362	8,763	8,437	8,191	48.0 %
3,242	3,029	2,882	2,808	2,503	46.6 %
414	400	381	390	443	29.8 %
87	79	70	86	77	11.7 %
550	509	173	133	146	426.7 %
47	—	—	—	—	100.0 %
14,644	13,819	12,652	12,220	11,745	51.4 %
35	572	605	597	615	(93.5)%
7,190	6,886	6,621	6,328	6,207	41.2 %
2,376	2,467	2,343	2,318	2,201	6.9 %
116	170	157	224	151	(51.7)%
408	362	406	347	431	(34.3)%
10,125	10,457	10,132	9,814	9,605	19.8 %
3,020	2,770	2,587	2,495	2,297	36.3 %
9,693	9,257	8,549	8,247	7,942	42.5 %
12,713	12,027	11,136	10,742	10,239	41.1 %
37,482	36,303	33,920	32,776	31,589	38.5 %

Calculation of Transfers: Stabilization Fund*

June 30, 2016

(Amounts are in thousands)

This statement is prepared on the statutory basis of accounting pursuant to General Laws Chapter 29, Section 5c. It presents information contained in the official books and accounting records of the Commonwealth. Financial statements supporting this calculation are presented in the Financial Section of this report.

	General	Commonwealth Transportation	Massachusetts Tourism	Gaming Local Aid	Total
Budgeted Fund Undesignated Balances	\$ (30,031)	\$ 35,089	\$ 35,618	\$ (40,677)	\$ —
Fund Balance Deficit Elimination Transfers Per Section 5C of Ch. 29	30,031	(35,089)	(35,618)	40,677	—
Fund Balances after Deficit Elimination Transfers (Consolidated Net Surplus)	—	—	—	—	—
<u>Disposition of Consolidated Net Surplus per Section 159 of Ch. 133 of the Acts of 2016:</u>					
To the Massachusetts Community Preservation Trust Fund	—	—	—	—	—
To the Massachusetts Life Sciences Investment Fund	—	—	—	—	—
Remaining Consolidated Net Surplus to be Deposited in Stabilization Fund	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>

Stabilization Balance Reconciliation:

Balance as of July 1, 2015	\$ 1,252,429
Transfer to Stabilization Fund from Abandoned Property Revenue Growth from Prior Fiscal Year	27,100
Transfer of certain tax revenues to the Stabilization Fund	744
Adjustment to General Fund transfer for change in market value and other accruals	11,241
Less Transfers from Stabilization Fund during FY 2016	—
Remaining Consolidated Net Surplus Deposited in Stabilization Fund, per Calculation Above	—
Stabilization Fund Balance as of June 30, 2016	<u>\$ 1,291,514</u>

* Excludes funds with no FY16 balances or activity

Note: Details may not add to totals due to rounding

See Independent Auditor's Report

Calculation Of Transfers: Tax Reduction Fund

June 30, 2016

(Amounts in thousands)

This statement is prepared pursuant to Chapters 29 Sections 2H and 2I of the Massachusetts General Laws, as amended. It is prepared on the statutory basis of accounting and presents information contained in the official books and accounting records of the Commonwealth. Supporting information is presented in individual schedules, as indicated, and in the Financial Section of this report.

The computation is as follows:

Part 1: Comparison of Stabilization Fund, after current fiscal year transfers,
to 15% of budgeted revenues and other financial resources:

Undesignated fund balance in the Stabilization Fund	\$ 1,291,514
Allowable Stabilization Fund balance	<u>6,054,833</u>
Stabilization Fund excess, if any, transferable to Tax Reduction Fund.....	<u>\$ —</u>

Part 2: Status of Stabilization Fund after transfers:

Stabilization Fund balance.....	\$ 1,291,514
Transfer to Tax Reduction Fund.....	<u>—</u>
Stabilization Fund balance after transfer to Tax Reduction Fund	<u>\$ 1,291,514</u>

Part 3: Status of Tax Reduction Fund after transfers:

Tax Reduction Fund balance	\$ —
Transfers from Stabilization Fund	<u>—</u>
Tax Reduction Fund balance after transfers	<u>\$ —</u>

See Independent Auditor's Report

MASSACHUSETTS GENERAL INFORMATION

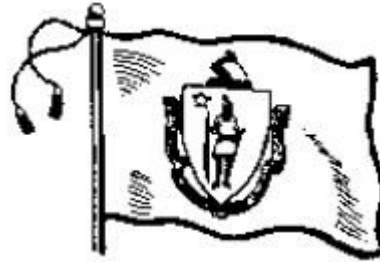
Admitted to Union (6th State): 1788
Population: 6,794,422

Capital: Boston
Nickname: Bay State

The State Seal



The State Flag



The State Seal, adopted by Governor John Hancock and the Council on December 13, 1780 and made official by the General Court on June 4, 1885, is circular and bears a representation of the arms of the Commonwealth encircled with the words "Sigillum Reipublicae Massachusettensis" (Seal of the Republic of Massachusetts). The arms, according to legislative enactment, consists of "a shield having a blue field or surface with an Indian thereon, dressed in a shirt and moccasins, holding in his right hand a bow, and in his left hand an arrow, point downward, all of gold; and in the upper corner of the field, above his right arm, bent at the elbow, clothed and ruffled, with the hand grasping a broadsword."

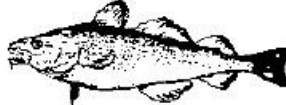
The State Flag is white, bearing on both sides a representation of the coat of arms. It was adopted in its final form in 1971; before that, the obverse side depicted a pine tree.

The State Flower



The Mayflower

The State Fish



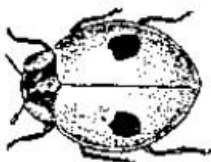
The Cod, a soft-finned fish, usually 10-20lbs. A sculpture of a cod hangs in the House of Representatives as a tribute to this useful aquatic creature.

The State Bird



The Black Capped Chickadee

The State Insect



The Lady Bug

The State Tree



The American Elm was adopted as the official tree March 21, 1941 to commemorate the fact that General George Washington took command of the Continental Army beneath one on Cambridge Common in 1775.

The State Dog



The Boston Terrier, the first purebred dog developed in America (1869), is a cross between an English bulldog and an English terrier.

Beverage: Cranberry Juice
Dessert: Boston Cream Pie

Muffin: The Corn Muffin
Cookie: Chocolate Chip

Horse: The Morgan Horse
Bean: Navy Bean



Commonwealth of Massachusetts

COMPREHENSIVE ANNUAL FINANCIAL REPORT

FISCAL YEAR ENDED JUNE 30, 2016